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HWM MALAYSIA

FEBRUARY 2015 // RM12 (WM) RM14 (EM) //
VOL 13 ISSUE 3

THE POWER TO DECIDE

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ALIENWARE®

PP 18407/03/2014(033808) ISSN 1675-4883
02
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ALIENWARE

BUILT LIKE IT'S OUT OF THIS WORLD

Dell Alienware 15

The all-new Alienware 15 is a gaming notebook that is built thin without sacrificing performance, while letting you take its performance further when paired with the optional Alienware Graphics Amplifier.



notebooks.com CES EXCELLENCE 2015 AWARD

Big Power, Small Package

Why settle for less than you deserve? The aerospace-inspired carbon fiber construction of the Alienware 15 gives the notebook a stylish look, while reaffirming its durability at the same time. Components are kept cooled with copper heat sinks, while performance has not been sidelined, offering up to 100W of dedicated AMD or NVIDIA graphics power.

Customize Your Machine

Choose from the pre-built options, or select the parts that come with the Alienware 15 before you. Powered by a choice of 4th generation Intel Core i5 and i7 processors, the Alienware 15 can also be customized with NVIDIA GeForce GTX 970M or 980M graphics, up to 16GB of DDR3L memory, as well as a standard 15.6-inch Full HD or UHD (3,840 x 2,160) IPS anti-glare touch display.

Supercharged Graphics

Want more out of the Alienware 15? Simply connect it with the optional Alienware Graphics Amplifier and brace yourself for a fully expanded desktop-class gaming experience. It supports AMD or NVIDIA graphics cards up to 375W, which means you can go for a multi-monitor setup and enjoy even more connectivity with the four additional USB 3.0 ports. Why compromise between performance and portability, when you can have the best of both worlds with the Alienware 15 and Graphics Amplifier?

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FEATURE: HYBRID CAR TECH

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THE WRIST WARS

Which Smartwatch is the Best?

TEST

FUJIFILM X100T
STREET SHARPSHOOTER

LENOVO THINKPAD 10 TABLET
FORM AND FUNCTION

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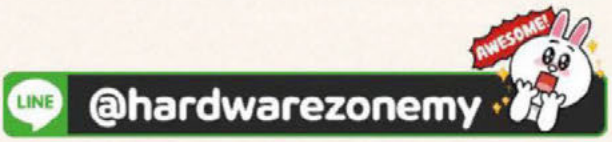
Forums

Got something on your mind that you want to share? Register today to get opinions on tech products, trends, and more.



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ED'S NOTE

FEBRUARY 2015



GET SMART

It's clear that the Internet of Things (IoT) and wearables figure prominently at this year's edition of CES, which has come and gone, leaving behind a slew of announcements – large and small – in its wake. There's no shortage of smartwatches and activity trackers in the works, especially now that the Apple Watch is expected to ship sometime in April this year.

Many such devices are focused on health and fitness more than ever before, monitoring vitals like heart rate and body temperature, while also providing insights into your workout patterns by measuring the form and intensity of your routine. And we're not just talking about the wrists either, as they can be expected to come in all forms and sizes, whether it's an adhesive chest patch with a built-in ECG sensor, or a compression shirt with biometric sensors.

Even pets are in on the action too, from connected dog collars that track your pet's body temperature and whereabouts, to one that live-streams their POV and allows you to give commands remotely. Aspiring green-thumbs can also look forward to smart flower pots that will take care of the watering for you, while also keeping tabs on the soil moisture, fertilizer levels, and ambient temperature.

As you can probably surmise by now, more and more of our everyday household objects will become connected, leading to smart devices that were once limited to the realm of science fiction. It's an exciting world we're living in, and it's only going to get more interesting from here.

Michael Low

EDITOR

Canon

Delighting You Always



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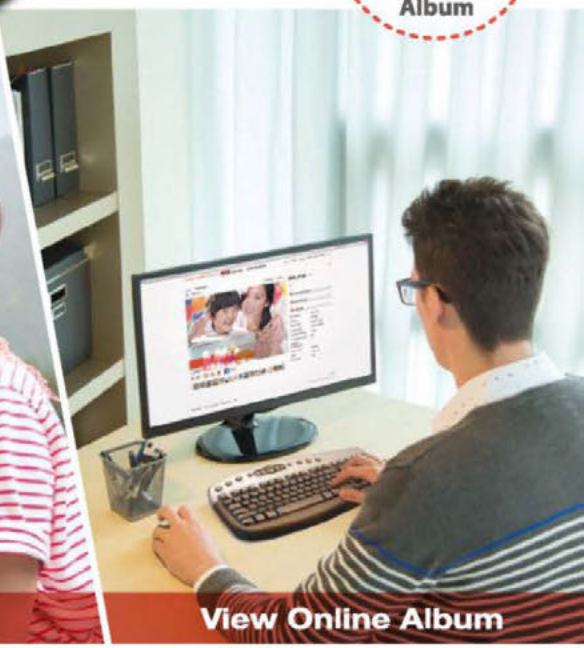
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10GB Online Photo Album is available for users of Canon cameras and camcorders produced since 2007.
ImageSync function is available on Canon Wi-Fi cameras and camcorders produced from July 2013 onwards.

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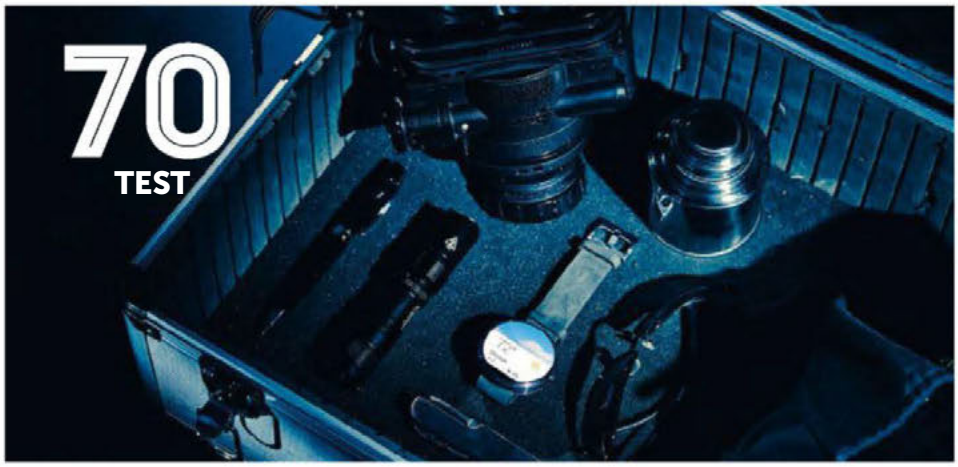
















ART DIRECTION **KEN KOH**

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NEW THIS MONTH

Every month, we receive dozens of product announcements and mentions, sit through many a launch event and try out all kinds of devices. All these products are then carefully curated by our crack team of tech gurus. The final list is presented here in Gear and it is our hope you'll find something to geek-out to.



SAMSUNG SUHD TV JS9500

Leading Samsung's 2015 4K UHD TV lineup is the SUHD TV JS9500, engineered to deliver an unrivaled viewing experience with its proprietary, eco-friendly nano-crystal technology and SUHD re-mastering engine. Sophisticated and elegant, the JS9500 series resembles a piece of art, thanks to its stylish curved frame, while your favorite content are never more than a few taps away on the Tizen-powered Smart TV. Canon Marketing (M) Sdn Bhd
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Woox Innovations 1 800 880 180

SONY SMARTWATCH 3 – STAINLESS STEEL EDITION

Sony's entry into the Android Wear circle gets a stylish, stainless steel update this month. Once paired to your phone, it serves up notifications on a transflective 1.6-inch TFT LCD, or you can opt to speak to it instead. The premium IP68-rated SmartWatch 3 is also fun in its own right, offering music playback, intelligent sensors and built-in GPS to sync your daily movements with the Lifelog app.

Sony Mobile Communications Int'l AB
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TAP FOR VIDEO

ALIENWARE GRAPHICS AMPLIFIER

Give the new Alienware 13, Alienware 15 and Alienware 17 gaming notebooks a huge graphical boost with the Alienware Graphics Amplifier. Insert an NVIDIA GeForce GTX or an AMD Radeon graphics card, connect the Graphics Amplifier to the Alienware notebook, and watch it churns out graphics as if the desktop-class graphics card was part of the system all along. Now, gamers can truly have the best of both worlds.

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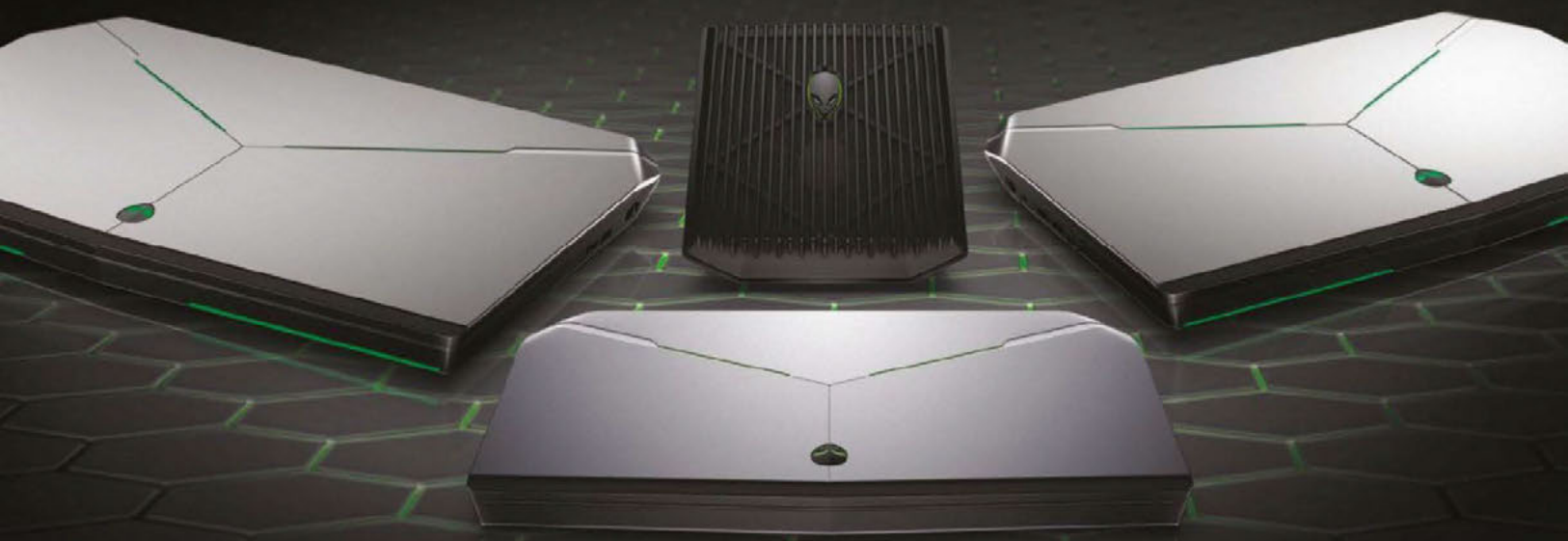
Alienware recommends Windows.

ALIENWARE

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TAP FOR WEBSITE

New Alienware laptops, available with 4th gen Intel® Core™ i7 processors, are here to usher in the next era of mobile gaming. Get full-throttle action anywhere, and with the optional Graphics Amplifier, truly intense at-home immersion.





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BELKIN THUNDERBOLT 2 EXPRESS DOCK HD

Designed for Thunderbolt and Thunderbolt 2-ready PCs and Macs, this docking solution lets you connect up to eight devices through the included Thunderbolt cable. There are two Thunderbolt 2 ports for blazing-fast file transfers at up to 20Gbps, as well as dual display and 4K cinema resolution support. You can also daisy chain four additional Thunderbolt devices, or take advantage of the three USB 3.0 ports, HDMI port, Gigabit Ethernet, and headphone jack.

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PARROT BEBOP DRONE

In addition to capturing 3-axis stabilized Full HD videos, the Bebop Drone is also built with safety in mind, automatically shutting off the propellers upon collision, and landing immediately during emergency. Powered by Parrot's P7 dual-core CPU and quad-core GPU, the Bebop Drone generates its own Wi-Fi hotspot, with two dual-band MIMO antennas to transmit the necessary information during first-person view piloting. It's also safe for indoor flying, thanks to its featherweight ABS reinforced structure and EPP hulls.
TJM Production Sdn Bhd (03) 7984 7844

MSI GT80 TITAN

SteelSeries' backlit mechanical keyboard with Cherry MX Brown switches on a gaming notebook. Need more be said? How about two GeForce GTX 980M GPUs in SLI? The GT80 Titan lets you freely access the hard drive bays, memory slots, ODD and more, just by unscrewing two screws. What's more, the digital trackpad also doubles as a numpad with a tap of your finger.

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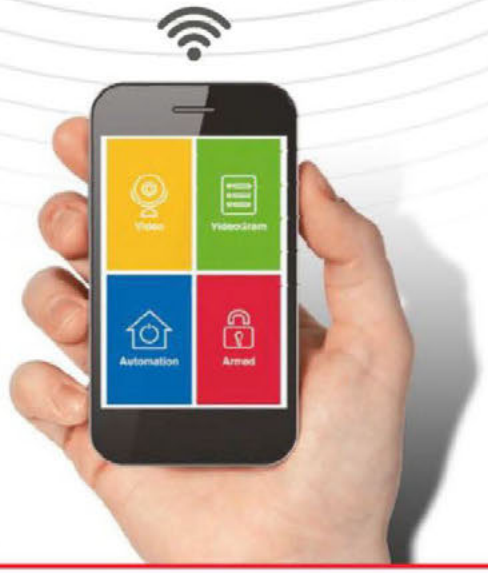
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HTC DESIRE 620 / 620G

The HTC Desire 620 and 620G are both mainstream dual-SIM smartphones with similar design and hardware specs, such as a 5-inch HD screen, 8-megapixel rear and 5-megapixel front camera. The difference lies in network support. The 620 supports 4G LTE based on the quad-core Qualcomm Snapdragon 410 chipset. The 620G, on the other hand, is a 3G device powered by MediaTek's octa-core MT6592. Both phones run on Android 4.4 with HTC Sense 6.

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RAZER NABU X

The Razer Nabu X is an entry-level wearable consisting of a water-resistant sensor module fitted into a rubber wristband. It uses three colored LED indicators and vibrations to alert users of any notifications received on a paired iOS or Android smartphone and also include an accelerometer for activity tracking.
www.razerzone.com



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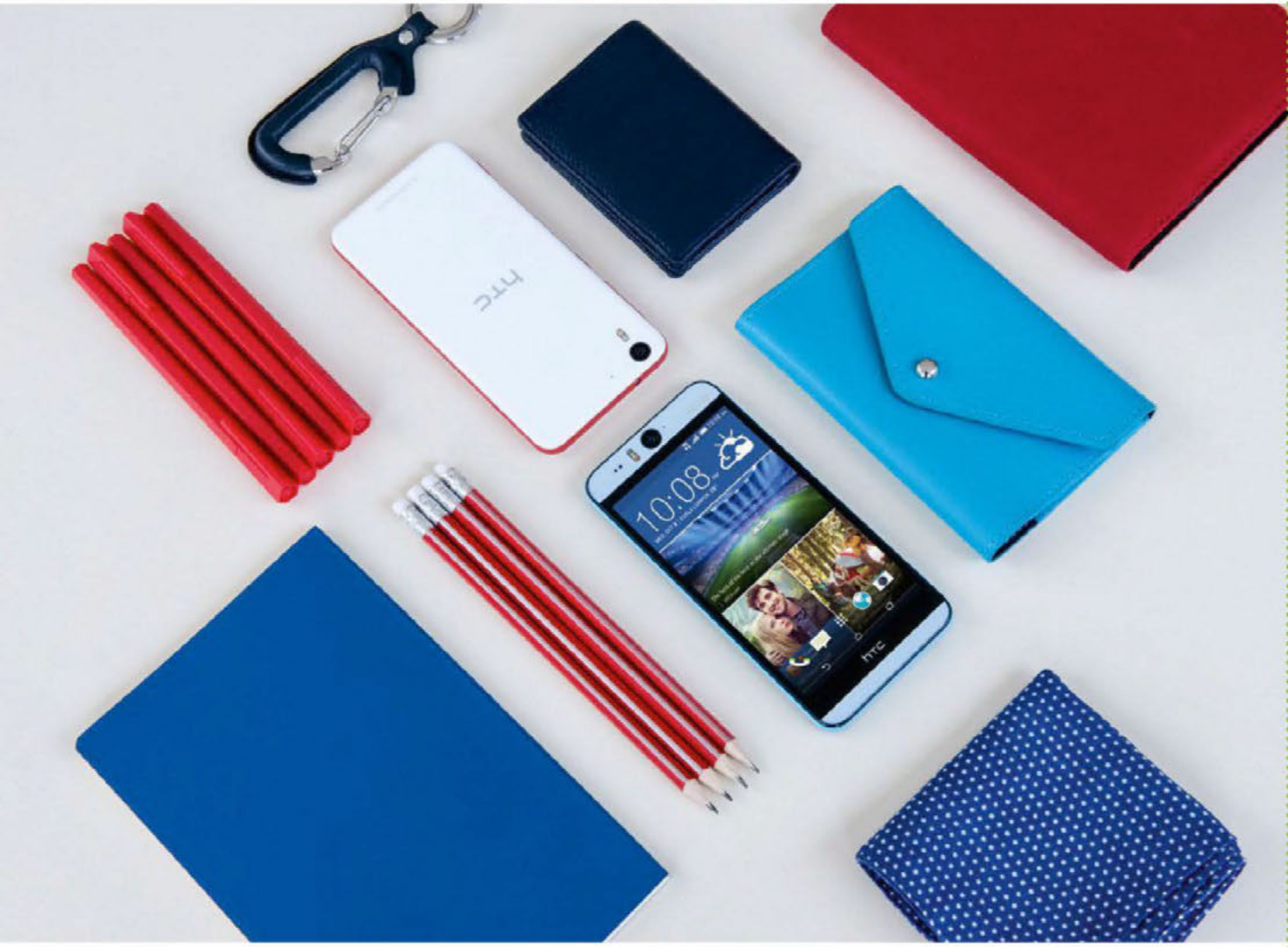
French startup and acoustic engineers from Devialet have unveiled the ultra-futuristic Phantom speaker. Using a hybrid digital and analog processing called ADH Intelligence and proprietary Heart Bass Implosion design, it boasts of zero distortion and background noise even at high volumes. The Phantom can work alone or paired with up to 24 units in Club Mode. Each unit outputs 750W (Phantom) or 3,000W (Silver Phantom) of power.

en.devialet.com



SPECIAL

htc



Selfies and impromptu photos have long since become the norm of the Instagrammers out there. Even more so, it's become a way for couples and lovers to show their affection towards each other.

Whether they're near or far, safe to say, every smartphone has a built-in front-facing camera, and just around the corner, there's also an accessory or companion device designed for capturing life's moments on the go.

But not every smartphone is like the HTC Desire EYE, and there's just nothing like the accompanying RE Camera. Here's why.



HTC Desire EYE

Dual 13MP cameras

What's better than a phone with a front-facing camera? The answer is a phone with a 13MP front-facing camera. That's right, with the Desire EYE, you will never have to worry about your photo looking dark and grainy.

Thanks to some brilliant engineering as well, both cameras on the Desire EYE also have dual LED flashes that accompany them, making night shots or pictures in poorly lit areas just as easy. So whether it's an endearing moment with your significant other, or if it's just you and them goofing about, there's no need to worry.

Complementary Power

Making a camera that sports two powerful cameras isn't a simple task. To handle it, you would need equally powerful hardware to power both sensors as well as perform your day-to-day tasks, such as messaging your loved one and keeping yourself up to date with everything that's going on.

To that effect, HTC has equipped the Desire EYE with a powerful Qualcomm Snapdragon 801 processor, 2GB of RAM, a 5.2-inch Full HD display, and Android 4.4 KitKat OS installed (which is upgradable to Android 5.0 Lollipop).

A Phone for All Seasons

So, you have the tools for taking the stunning landscapes and selfies, and you have the power to control all of it. All that you need then is a device with the ability to capture these moments in all weather conditions.

Certified with an IP X7 rating for both water and dust protection, you can take that candid underwater shot inside the pool, where you and your other half chose as your getaway vacation spot. Once you're done, simply wipe down with a towel, and it's dry and ready to be tucked away again.

Want to win yourself a HTC Desire EYE? Tell us, "What's your best pick-up line?"

Send your answer to
contest@bluinc.com.my
with the subject 'HWM Feb 2015 - HTC Desire EYE Contest'

HTC RE Camera

16MP Camera Redesigned

Made partially in response to the popularity of action cameras, the HTC RE Camera is a device that can be aptly described as out of the ordinary. Its body is shaped like a military-style flashlight, making it extremely easy to grip and hold.

Thanks to that 16MP camera sensor, you'll also be able to take fantastic candid shots anytime, be it at your wedding, your engagement party, or even a drive out in the country with your significant other.

Wide Angles and Live Streaming

If you're worried about getting everything inside your HTC RE Camera, don't you worry. The lens inside the camera is wide, with a view of 146-degrees, so you can easily capture yourself, your lover and the surrounding view without having to worry about fitting in the background.

It is also capable of streaming videos, either directly to your smartphone or straight to YouTube. That way, you can easily give your family and friends an idea of where you are, or save the video directly to the cloud.

In Deep Waters

Out in the sea, using your smartphone to take a photo underwater has never been recommended. Enter the RE Camera, and its prowess to actually take photos underwater, be it in the pool or out in the open sea.

Of course, if you don't want to hold it constantly in your hands, you can also use the numerous accessories that are made available for the RE Camera, such as a head mount for those action shots, or a suction cup for you to stick on to your car's dashboard or a table.





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HTC Customer Service Hotline
1 800 889 855

ALPINE HEADPHONES

These diamond-shaped angular beauties feature dual 40mm drivers, built-in powered amplifier and signal processors for enhanced audio, plus a headband that vibrates with the bass line. Alpine calls this Tuned Kinetic Resonance 3 and supposedly transmits acoustic low frequency through the headband structure to improve the bass experience without damaging your ears.

www.alpineheadphones.com

ELYSIUM PORTO VII

The Porto VII is a versatile 2.1-channel portable wireless speaker that brings together a powerful 10W subwoofer and a pair of 2-inch full range drivers to produce 25W of total output power. Powered by Dirac HD Sound, the Porto VII delivers a three-dimensional soundstage, and can be paired with your audio sources via Bluetooth 4.0, NFC, USB, 3.5mm audio or AUX-in jack.

Leapfrog Distribution Sdn Bhd (03) 7803 6703



BLACKBERRY CLASSIC

As the name suggests, the Classic is a return to the Bold series as it features BlackBerry's signature physical QWERTY keyboard and navigation keys. It understandably sports better hardware compared to its predecessor, such as a 3.5-inch touchscreen with 720 x 720 resolution, powered by MSM8960 dual-core SoC along with 2GB of RAM. In addition to BlackBerry 10 OS, the Classic also has an 8MP rear camera and 2MP front camera.

BrightStar Distribution Sdn Bhd 1 300 88 2744

SONY BRAVIA X9400C

Headlining Sony's new line of 4K Ultra HD LCD TVs is the BRAVIA X9400C. Made ultra-thin with a floating bezel design, the 75-inch flagship TV sets many firsts, including Hi-Res Audio speakers and Google's Android TV OS. The new 4K Processor X1 ensures brilliant colors and image clarity, while the 4K X-Reality PRO engine deftly upscales any content sources on the TRILUMINOS Display.

Sony Customer Interaction Center 1 300 88 1233

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For more information on AQUOS Quattron Pro, please log on to www.aquos-world.com

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Service Enquiry: Tel: 1800 888 678 (Toll Free) Fax: 03-5102 5329

www.sharp.com.my/aquos
Email: productinfo@my.sharp-world.com
SharpAQUOSMalaysia

NIKON D5500

Based off 2013's D5300, the new D5500 features a slimmer and lighter body, and is the first DSLR from Nikon to sport a touchscreen LCD – all 3.2-inches of it. The DX-format camera is Wi-Fi ready, while sporting a 24.2MP CMOS sensor and EXPEED 4 image processor for capturing 1080p/60 videos and high-resolution still images up to 5 fps. It also shoots up to ISO 25600, while the 39-point AF system remains unchanged

Nikon (Malaysia) Sdn Bhd (03) 7809 3688

MONTBLANC TIMEWALKER URBANSPEED E-STRAP

Instead of producing a smartwatch, the e-Strap replaces the band for standard Montblanc 22/23mm TimeWalker mechanical watches. It features a 128 x 36 pixel OLED touch display for smart notifications and offers activity tracking functions with a companion app compatible with Android 4.3 and iOS 7 and above. Its battery is slated to last for five days.

www.montblanc.com









SONY WALKMAN NW-ZX2

The follow-up to last year's premium Hi-Res Audio Walkman, the NW-ZX2 retains the solid design of the original, down to the gold-colored 3.5mm audio jack. Navigate the Jelly Bean UI on the 4.0-inch FWVGA TRILUMINOS display, or aim for the playback buttons on the sides. Sony also shaved a few millimeters off the bottom-heavy chassis, and thoughtfully added microSD support for up to 33 hours of Hi-Res Audio listening.

Sony Customer Interaction Center 1 300 88 1233

TRANSPARENT SPEAKER

People Products' Transparent Speaker deserves your consideration going by its looks alone. While most speakers are stealthy black boxes meant to be hidden, the Transparent Speaker is a speaker that should be featured prominently. It has the usual audio jacks, as well as an USB port for smart devices or Bluetooth dongles.

www.peoplepeople.se/transparent-speaker

POLAROID C201

Stay safe on the road with the small and unassuming C201 Driving Recorder. Fitted with a 2-inch TFT LCD display, the easily concealable dashboard camera records video in either 1080p/30 or 720p/60, while Night Vision mode ensures clear video capture even in low-light situations. Easily mounted to the windscreen with the provided suction cup, and protects crucial video footage upon impact or collision detection.

SC Distribution Sdn Bhd (03) 4296 2628

JABRA SPORT ROX WIRELESS

The Sport Rox Wireless is a premium and sporty on-the-go earphones that's built with rich, high-definition Dolby sound. As the name suggests, users can focus on their workout as the IP54 certified earbuds are sweat- and stormproof. Boost your workout with your power playlist wirelessly, thanks to Bluetooth 4.0 and NFC technology. When taking a breather, just clip the earbuds together for the power-saving magnet to kick in.

Tat Chuan Acoustic www.tcacoustic.com.my



SAMSUNG WAM7500

Unconventional is the name of the game with Samsung, most evident in the WAM7500. Designed by its state-of-the-lab audio lab in California, the stand-type speaker enables sound to flow in a 360-degree radius through its proprietary 'Ring Radiator' technology. Built using premium materials, the WAM7500 blends well with any home décor.

Samsung Careline 1800 88 9999

RAZER FORGE TV

If you've ever wanted to stream Android games to a larger screen, then the Razer Forge TV is what you want. It's armed with a quad-core Qualcomm processor and dedicated GPU to power multiplayer gaming and stream media content with Wireless AC and Gigabit Ethernet. In addition to supporting the Serval gaming controller, the Razer Forge TV can also stream your PC games to the big screen using the Razer Cortex: Stream software.

Ban Leong Technologies Sdn Bhd (03) 7956 6300

GIGABYTE P35X V3

This ultra-slim gaming notebook sports a number of high-performance features, namely NVIDIA's high-end GeForce GTX 980M graphics, the latest 4th generation Intel Core i7 processor, along with 8GB of DDR3L RAM. Despite its 20.9mm thin profile, the P35X v3 boasts a 15.6-inch IPS anti-glare display with a WQHD+ (2,880 x 1,560) resolution. Thanks to Supra-Cool technology, the notebook continues to deliver amazing gaming performance with outstanding cooling efficiency.

ILLEGEAR (03) 7610 0987

BENQ XL2730Z

A new addition to BenQ's successful XL series gaming monitors, the XL2730Z impresses with its WQHD resolution and AMD FreeSync capability. In addition to its adjustable stand, the monitor also features Low Blue Light and RevolutionEyes technology to combat eye fatigue, enabling a longer and comfortable gaming session. Other features include 144Hz refresh rate, 1ms GTG response time, Black Equalizer, and more.

BenQ Service and Marketing (M) Sdn Bh (03) 7954 7800



SAMSUNG PORTABLE SSD T1

Need to store large amount of data in a small and portable package? Samsung's new Portable T1 SSD has the performance of an internal SSD to match its stylish design. Equipped with V-NAND technology, this business card-sized SSD is capable of up to 450MB/s transfer speed with the USB 3.0 interface. Available in 250GB, 500GB and 1TB capacities, users can also protect their data with AES 256-bit encryption and the embedded security software.

Samsung Careline 1800 88 9999

MSI Z97I GAMING ACK

Whoever said gaming PCs have to be huge and bulky? With the Z97I Gaming ACK, you get full performance from its Intel Z97 chipset. It features Killer DoubleShot Pro networking that allows smart teaming of both LAN and Wi-Fi for greater bandwidth, M.2 support and a PCB design that allows large coolers and even watercooling kits to be installed on its mini-ITX form factor.

AMT PC Distributors Sdn Bhd (03) 3344 1124
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CASIO

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ALIENWARE 15

Crafted with carbon-fiber materials, you can expect the new Alienware 15 to be a good looking and tough piece of hardware. You have a range of choices when it comes to what you want inside that durable body: NVIDIA GeForce GTX 900M series GPU, a 4th generation Intel Core i5 or i7 processor, and a choice of 15.6-inch Full HD and Ultra HD display that's touch optional.

Dell Sales Malaysia Sdn Bhd 1 800 88 0301



SAMSUNG SE790C CURVED MONITOR

One of the latest additions to Samsung's curved monitor lineup, the SE790C is a 34-inch Ultra WQHD (3,440 x 1,440) display with an ultra-wide 21:9 aspect ratio for an unrivalled panoramic viewing experience. Feast your eyes on brighter colors, deeper black and pristine whites, thanks to its best-in-class 3,000:1 static contrast ratio and 178° wide viewing angle. Connectivity options include two HDMI ports, a DisplayPort and four USB 3.0 ports.

Samsung Careline 1800 88 9999





PLEXTOR M6E BLACK EDITION PCIE SSD

Designed to fuel your gaming needs, the M6e Black Edition is a solid-state drive that's designed for PCI Express Gen 2 x 2, which delivers sequential read and write speeds of up to 770MB/s and 625MB/s, while bypassing the bottleneck of conventional SATA connections. Available in capacities of 128GB, 256GB and 512GB, the drive adheres to Plextor's Zero-Failure Zero-Error standard, and boasts PlexTurbo 2.0, dual-core Marvel 88S9183 controller and Toshiba's Toggle NAND flash memory.

Build Technology Supply Sdn Bhd (03) 7955 3699



ZANO

Debuting at CES 2015, the ZANO from Torquing is a Kickstarter project for a palm-sized nano drone that is said to be able to fly perfectly fine on its own right out of the box. It does this through the Lantronix xPico Wi-Fi module, establishing a secured connection with your smartphone as a wireless tether. It's even smart enough to return to you if it detects it is running low on batteries.

www.flyzano.com

APACER COMMANDO DDR4 OVERCLOCKING MEMORY MODULE

Take hold of the next generation Intel X99 Extreme chipset and the MOBA battlefield with this lightning-fast Apacer Commando DDR4 RAM. It has a maximum clock speed of 3,200MHz with a perfect low timing of 16-16-16-36, and comes in capacity combinations of 16GB and 32GB kits of quad-channel memory.

Build Technology Supply Sdn Bhd (03) 7955 3699
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MSI GE62 APACHE PRO

The GE62 Apache Pro has everything you'd expect from an MSI gaming notebook. From the multi-color backlit SteelSeries keyboard to the NVIDIA GeForce GTX 900M series GPU, every components are there to make your gaming experience a great one. If you own other SteelSeries peripherals, you can also have the SteelSeries Engine lit them all up with the same color, or customize a combination of your liking.

MediaForte (M) Sdn Bhd (03) 7960 6868





VIEWSONIC VX2880ML

A 28-inch Ultra HD monitor with a 3,840 x 2,160 pixel resolution, the VX2880ml boasts 1.07 billion colors, a 50,000,000:1 MEGA Dynamic Contrast Ratio, along with Flicker-Free and Blue Light Filter technology for a remarkable, yet comfortable viewing experience. In addition to HDMI and MHL inputs, the monitor also supports dual DisplayPort inputs and one DisplayPort output to make the most of multi-screen productivity.

SDS Distribution Sdn Bhd (03) 7782 4700
Kaira Technologies (M) Sdn Bhd (03) 7955 3669



STEELSERIES SENTRY

The SteelSeries Sentry is a one-of-a-kind eye tracking sensor designed to provide further immersion of video game streaming. Instead of waiting on a commenter to tell you what's happening, the Sentry tracks eye movement in real time, and overlays this information over the stream so viewers can focus on what the streamer is looking at.

Nation-Tech Sdn Bhd (03) 4280 6636

TP-LINK ARCHER D2

The Archer D2 combines 802.11ac Wi-Fi with an ADSL2+ modem in one space-saving networking device. It comes with five Gigabit Ethernet ports, as well as AC750 dual band Wi-Fi for fast wireless performance with the flexibility of the 5GHz and 2.5GHz band. In addition to Ethernet WAN support, it also boasts a USB 2.0 port for networked printer, cloud storage, and more.

Lab Seven (M) Sdn Bhd (03) 8075 8811



EPSON L850

A multifunction A4 printer with a 6-color ink tank system and a 2.7-inch LCD display, the Epson L850 not only delivers significant savings, but also reliable photo and document printing – whether it's from a PC, USB device or SD card. Borderless prints aside, the L850 also support direct printing onto optical discs, and high-quality photo printing of up to 5760 DPI.

Epson Malaysia Sdn Bhd (03) 5628 8288





CANON IMAGECLASS MF217W

A premium all-in-one laser printer with built-in wireless, the MF217w lets you print, copy, scan and fax using its intuitive 6-line monochrome touch panel. In addition to one-touch Solution Keys, the MF217w includes both Ethernet and Wireless-N support, enabling easy scanning and printing to and from your mobile devices with Canon Mobile Printing and Mobile Scanning for Business.

Canon Marketing (M) Sdn Bhd 1800 88 2000



D-LINK DIR-890L CLOUD ROUTER

First announced during CES 2015, D-Link's new DIR-890L Wireless AC3200 Tri-Band Gigabit Cloud Router has been heralded the best-in-class cloud router of the year. It boasts speeds of up to 3.2Gbps, comes built with six high-speed antennas, and features such as Advanced AC SmartBeam technology, SharePort and cloud management.

AdvanceNet Technology Sdn Bhd (03) 8070 3633
Ingram Micro Malaysia Sdn Bhd (03) 7491 6666
SiS Distribution (M) Sdn Bhd (03) 7952 8188

THINK

CES 2015

The annual Consumer Electronics Show in Las Vegas sets the pace for tech trends throughout the rest of the year. We had front seats to what is arguably the biggest geek convention on the planet and these are our top 5 trends to look out for in 2015.

Text by *Team HWM*



MORE INSIDE>
DYSON ON DYSON
Overpriced suckers or technological breakthrough? James Dyson shares his thoughts on how hardware innovation makes more impact on our everyday lives than you may think.

HERALDING CARS OF THE FUTURE

For 2015, the latest buzzwords in the automotive world is ADAS (Advanced Driver Assistance Systems) and the return of hydrogen.

by Kenny Yeo

Cars powered by hydrogen are not new. In 2002, Honda's FCX became the first hydrogen fuel-cell car in the world to be certified by the U.S. EPA (Environmental Protection Agency) for commercial use. Hydrogen-powered cars use hydrogen combined with oxygen to produce electricity to power an electric motor that in turns provides motive force to the car. Impressively, the only byproduct of this chemical reaction is water. And these cars could be refueled like regular cars simply by visiting a hydrogen pump station. However, despite the many benefits of hydrogen cars, they never quite took off for various reasons. Harvesting hydrogen proves to be an expensive and tricky process and developing hydrogen-powered cars is no simple feat either.

But despite the challenges, Toyota has announced the Mirai, its own hydrogen powered car, and plans to sell 700 of it globally this year. The Mirai is a 4-door sedan and refueling it takes about five minutes - comparable to traditional gasoline-powered vehicles. When fueled, it has a range of about 480 km. To help hydrogen cars take off, Toyota is also allowing its competitors access to its intellectual property of around 5,600 related patents. Currently, Honda, General Motors, and Nissan are said to be examining hydrogen fuel-cells to power their cars of the future.

Hydrogen cars aside, one thing that we are going to see more of from cars of the future is ADAS (Advanced Driver Assistance Systems). Broadly put, ADAS refers to technologies that will make driving both easier and safer. Hyundai painted a future where its cars could park itself, navigate itself through narrow streets, detect pedestrians and even analyze traffic intersections and brake automatically if it deems it is unsafe to proceed. However, doing so requires lots of computing power, so NVIDIA wasted no time in announcing its new DrivePX supercomputer for the car. Powered by the company's new Tegra X1 processor, the DrivePX aims to be the brain for the car's systems, allowing them to drive themselves autonomously. Already, Audi has expressed its commitment to using NVIDIA's DrivePX platform in its cars.

That is the future. For now, automakers are looking at ways to make it easier for drivers to interact with their cars and to make cars smarter. Ford's Sync 3 in-car infotainment system can receive system updates such as the latest maps via Wi-Fi. Volkswagen also showed off its new gesture control system, with the ultimate goal being the elimination of all physical switches. These are exciting times for the auto industry as it seeks to enter a new age. Though many of these concepts are still in their infancy, we fully expect things to progress exponentially in the next few years as more companies throw their weight behind these new technologies and platforms.

"TO HELP HYDROGEN CARS TAKE OFF, TOYOTA IS ALSO ALLOWING ITS COMPETITORS ACCESS TO ITS INTELLECTUAL PROPERTY OF AROUND 5,600 RELATED PATENTS."



MOBILE OPERATING SYSTEMS GRADUATE TO THE BIG SCREEN

Here's wishing Firefox OS, Tizen, and WebOS every success in their TV futures.

by Ng Chong Seng

The two things TV manufacturers traditionally competed on - picture quality and design - were largely driven by the hardware engineering department. Sure, software engineering still happened, but its work was rarely thrust to the fore by the marketing department. After all, "hard" features like new pixel matrices, curved screens, and voice controls all make for better tent-pole features in the brochures than say, a pretty onscreen menu or fast input switching.

But as TVs became more powerful and home entertainment more complex, TV makers also began the race to tick as many checkboxes as possible in the features list. Wireless streaming, web browsing, screen mirroring, voice interaction, social media support - you name it. The results, more often than not, were convoluted, clunky, and downright ugly user interfaces. TV makers will not admit it, but their smart TV creations have brutally exposed their ineptness in UI and UX designs.

After years of quick fixes that eventually led nowhere, TV manufacturers are now turning to mobile operating systems en masse. LG led the charge with WebOS in 2014, and at this year's CES, the company wheeled out its latest WebOS 2.0-powered TVs. Not to be outdone, cross-town rival Samsung announced that Tizen OS will be the foundation of its smart TV platform moving forward. Across the Sea of Japan, Panasonic has embraced Mozilla's Firefox OS; and Sharp and Sony have jumped onboard Google's Android TV system. Yes, TV makers may still screw it all up in the name of differentiation, but I've high hopes that because of the mobile roots of these OSes, the smart TV experience (from boot times and menu navigation, to multi-tasking and device interoperability) will take a huge step forward from now on.



"AFTER YEARS OF QUICK FIXES THAT EVENTUALLY LED NOWHERE, TV MANUFACTURERS ARE NOW TURNING TO MOBILE OPERATING SYSTEMS EN MASSE."

WEARABLES: FROM SMART SHIRTS TO PET TRACKERS

The year where one can probably find a smart tracker in everything.

by James Lu

When it comes to wearables, for now, the hottest piece of real estate is undoubtedly your wrist, but after CES 2015, that might start to change. Among the Innovation Award winners at this year's CES was a shirt that uses fiber optic cabling to track and model your body's movement, a heart-rate-monitoring strip that sticks to a user's torso, and a helmet that can measure and soothe your stress levels. Some exhibitors even debuted wearables for pets.

Smart shirts that can track your activity are nothing new, but shirts made out of a revolutionary new material called XelfleX could completely change smart clothing. The material makes use of fiber optic cabling and advanced data algorithms to track your body's movement in incredible detail. It works through backscatter data created whenever fiber optic cabling is bent or twisted. This data can then be used to create a real-time, perfect 3D model of what the users arm is doing. The possibilities for fitness or sports coaching are endless, but we might also see XelfleX paired with gear like Oculus Rift to further enhance the VR experience.

One area showing great interest in new wearables is healthcare. Rather than hooking patients up to bulky machines to monitor their vitals, a device such as the AmpStrip, an adhesive patch with a built-in electrocardiogram sensor could be stuck to your chest like a band-aid, and used to monitor your heart-rate and activity, syncing that data in real time directly with the hospital's computers. CES also saw the debut of the Melomind helmet, which uses electrodes to measure levels of stress via brain activity and then plays appropriately soothing musical tones to put wearers in a more relaxed state. Chronic pain sufferers may also be interested in the Quell band, which uses electrodes to stimulate nerves for pain relief.

Pets are now a target market for wearables too, with the introduction of products like WonderWoof, a Wi-Fi enabled bow-tie with a built-in accelerometer that you can attach to your pet's collar. The device will track where your pet is, and give feedback about his or her activity. The app also supports a scheduler which provides users with a 'doggy diary' for daily activities. Wonderwoof's creator, Betsy Fore, created the device after realizing that her dog was fat, and then realizing that she had no idea why her pet was packing on the pounds.



"SMART SHIRTS THAT CAN TRACK YOUR ACTIVITY ARE NOTHING NEW, BUT SHIRTS MADE OUT OF A REVOLUTIONARY NEW MATERIAL CALLED XELFLEX COULD COMPLETELY CHANGE SMART CLOTHING."

AUDIO CUTS THE CORD

If 2014 was the introduction of High Resolution Audio to the mainstream, 2015 will be the year of quality wireless audio.

by Marcus Wong

The buzz for audio products at CES 2015 remains very much on High Resolution Audio (HRA) coupled with wireless technologies, with new wireless models from AKG, Sennheiser, Sony, and Onkyo all on show. While wireless headphones are not new, they seem to be more predominant this year, perhaps indicating that there is indeed value to less clutter.

That's especially evident when you look at the multi-room audio streamer segment. Once the sole domain of Sonos, many mainstream makers have since released their own offerings, making it easier than ever to have a speaker in every room, all controlled from a single device. Play a different song on each, or have all the speakers play the same song together; the introduction of technologies like Google Cast will make it easier for these songs to come from the cloud or just any smart device.

Expect to see more streaming services offering HRA streaming in the coming years, which means we will also need wireless technologies that better support the bandwidth that HRA demands. Sony may have a head start there with their new LDAC Bluetooth codec. Supposedly three times more efficient than the previous Bluetooth technology, this allows it to better support the bandwidth needed for high-resolution audio files, and it'll be interesting to see if this becomes a standard, or if the other makers launch their own bandwidth efficient codecs.

HRA has also left room for a revival of portable media players, as unlike mobile phones which get bogged down by games and photos, these players basically offer dedicated storage just for audio, as well as higher quality DACs (Digital Analog Converters) that better cater to audiophiles. Large onboard memory and a memory card slot for easy expansion, as well as Wi-Fi/network support to access various streaming services should be the norm in this year's devices.

Finally, integrated sound processing technologies are also being incorporated into the headphones itself, like Parrot's Zik Sport earphones (which feature 32-bit sound processing) and the impressive Neoh headphones by 3D Sound Labs, which use motion sensors and the way we perceive sound to recreate the effect of three-dimensional sound in your head.



"EXPECT TO SEE MORE STREAMING SERVICES OFFERING HRA STREAMING IN THE COMING YEARS, WHICH MEANS WE WILL ALSO NEED WIRELESS TECHNOLOGIES THAT BETTER SUPPORT THE BANDWIDTH THAT HRA DEMANDS."

VIRTUALLY DREAMING

Turning fantasy to reality.

by Salehuddin Husin

CES isn't exactly the best indication of where gaming trends are headed. For that, we'd have to wait for E3 later in the year. However, we can see in terms of technical direction that gaming companies are actively looking for the next big thing that'll up the level of engagement in gaming. And the big buzzword seems to be Virtual Reality (VR).

VR isn't exactly a new trend. High profile projects like the Oculus Rift have continuously been in the limelight for the past two years with no real consumer progress to date. Often compared to the failed push by TV makers to make 3D entertainment mainstream, VR feels like a similar gimmick that has great potential on the outset, but a very limited or restrictive application in real life.

And yet, major investments in VR continue to happen. Is there really something in it that we haven't seen? The biggest news so far isn't any newfangled headset, but rather Razer's initiative to push for a proper and open sourced VR platform.

Instead of a fragmented VR solution that puts even more restrictions to an already closed environment, an open source base will allow everyone access to the same set of tools hopefully with the goal of realizing its potential reach quicker.

The fact that Razer is pushing for an open source platform and has support from industry giants like Unity Technologies (the creators of the Unity engine) and startups like Sixense (which is developing an innovative VR interaction system that promises very little lag and 1:1 movement accuracy), may make the technology a real game changer and something worth keeping an eye on. Of course, we're still waiting for the Holodeck to become reality instead of having to wear dorky VR headgear.

Another trend for gaming that's on the verge of becoming mainstream is streaming, both local device and cloud-based. Again, this concept isn't a new one, but it's only with current broadband and network advancements that acceptable levels of interactivity and engagement allow game streaming a chance of success.

Sony's PlayStation Now service is launching in the U.S. in a few months, as will NVIDIA's GRID. Pioneers such as OnLive and Gaikai (now under the Sony umbrella) are constantly perfecting their technology, which can easily be seen in how Remote Play has evolved from the near unplayable mess it was in early PSP games to the relatively smooth version running on current Xperias now.

It'll be interesting to see which of the two trends will survive as the industry is notoriously fickle in its technology adoption.



"THE FACT THAT RAZER IS PUSHING FOR AN OPEN SOURCE PLATFORM AND HAS SUPPORT FROM INDUSTRY GIANTS LIKE UNITY TECHNOLOGIES AND STARTUPS LIKE SIXENSE MAKE IT A REAL GAME CHANGER."

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> Nothing is clear about the future – but engineers will continue to challenge convention and improve technologies along the way.

Dyson on Dyson

JAMES DYSON FOUNDER & CHIEF ENGINEER, DYSON

by *Marcus Wong*

Home appliances are getting smarter and smarter. How is this being reflected in new products that Dyson is launching, and what sort of "connected home" do you envision for the future?

The digital and tangible worlds are coming closer together. So-called 'digital' companies want a foothold in products that you can make and hold – but the hardware needs to be suitably high-performing if the experience is to be a good one in the home.

Our latest vacuum, the Dyson 360 Eye robot, is the first autonomous Dyson machine. It understands its environment so it knows where it has cleaned, and where it is yet to go. The Dyson digital motor enables it to perform vacuuming while an app helps people stay on top of their domestic tasks remotely. It is currently undergoing beta testing in Japan but we hope to see it in Malaysia soon.

How much better can our home appliances become? Is it more a case of being more efficient at what they do, or adding further functionality that we haven't thought about yet?

Nothing is clear about the future – but engineers will continue to challenge convention and improve technologies along the way.

Hardware is where the real gains are to be made: autonomous machines that truly understand and react to their environment; batteries which last longer; and super materials that can allow us to create lighter, stronger, machines. Leaps in these areas will change the way we interact with our technology, and the way it interacts with us.

What are some of the emerging technology trends you've noticed that you think are most likely to have the most impact?

Each year, my Foundation runs the James Dyson Award - an international design award that is run in 18 countries, including Malaysia. It is open to design and engineering students as well as recent graduates. The brief is simple: design something that solves a problem. One thing that comes through each year is the desire of the young engineers and scientists to develop sustainable technology – to do more with less.

One winner who particularly caught my eye was a young man who was developing a revolutionary wave energy system. Harnessing the power of the waves on multiple axes he has developed a way to increase energy production. He won US$45,000 to help commercialize his idea – and I expect he'll do very well.

Dyson has been a leader in innovation, with prototypes like the Dyson Halo and the engine that filters out environmental toxins under development, yet neither were ever released. What factors decide if a product is ready for commercialization?

Dyson has over 4,000 patent applications, for more than 500 inventions. Some ideas make it into production quickly, while others take a little longer, and sometimes re-surface in a different guise.

After three years of research and development, the Halo project was put on hold so that Dyson engineers could focus on expanding Dyson technology into the USA. Elements of the technology are now being used in future research projects. No ideas are wasted!

The average consumer doesn't care as much about the technology behind a product as he does the end result. How do you take technological breakthroughs and turn them into user-friendly products?

It is no good developing a machine that just looks nice; if it does not do its job, people quickly lose interest. Therefore, I think people do care about the technology inside, they just do not always immediately realize it.

Finally, what can we expect to see from Dyson next?

It's an engineer's mind-set to keep solving problems. We have a 25-year time horizon on our future technology and are working with 30 of the world's best universities to develop new technologies which will be at the core of it. I can't tell you any more than that other than to say that the Dyson digital motor, which is manufactured here in Singapore, will be at the heart of it.

PICTURE DYSON

TEIXOBACTIN: OUR NEWEST ALLY AGAINST DISEASES?

by *Salehuddin Husin*

As diseases are evolving constantly, antibiotics that work on newer strains are getting fewer and fewer. One day, our current antibiotics might not even work anymore, which is why a discovery of a new antibiotic like Teixobactin is a big thing. Despite human trials being a few years away, the antibiotic has shown remarkable capabilities in combating drug resistant diseases like MRSA and TB. Initially, researchers feared that the antibiotic might be too effective; possibly killing both healthy and diseased cells indiscriminately. However, tests on laboratory animals have shown that the antibiotics are discerning enough on what they attack that those fears were misguided. With tests on-going, it might prove to be versatile enough that it could one day save your life.

PICTURE: CENTERS FOR DISEASE AND PREVENTION

DRONES

The Nimble New Contenders



The days of large bulky drones are numbered. There are new quadcopters in town and they are smaller, smarter, lighter, nimbler, and easier to fly. More portable than before and just as powerful (or even more), these new drones open the doors of possibility even wider by welcoming new levels of creativity and taking the impossible to new heights.

Text by *Azizul Rahman Ismail* Photography *Kah Mun @ Myth Studio* Art Direction *Frederick Lim*



DJI INSPIRE 1

This small wonder was produced by DJI, the same people who introduced one of the best drones available in the market today. The highly-anticipated Inspire 1 brings drone videography to the next level with the introduction of Vision Positioning System, a system that lets a user fly the drone indoors.

The Inspire 1 also features other innovations, such as dual-operator control where one controller flies the drone, while the other controls the camera; an intelligent power management system that ensures you have enough juice in the battery to operate the drone safely; and a new 4K camera and gimbal system.

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- Live map and radar
- Auto-takeoff and landing
- Flight telemetry



SKY-HERO LITTLE SPYDER

For the enthusiasts, hobbyists and the tinkers at heart, there is the Little Spyder from Sky-Hero. This almost-ready-to-fly drone is foldable, easy to transport, and is fully customizable. Need more power? Upgrade its motors. Need it to be more compact? Use shorter booms or smaller propellers – the possibilities are endless.

The Sky-Hero Little Spyder is GoPro compatible, which means it can take advantage of one of the best action cameras in the market today, and could deliver 4K video quality right out of the box. Whether you are interested in flying a reliable quadcopter, experiencing first-person flight, or after gimbal drone photography, the "Little" Spyder will meet your needs.

/dronestudio.net

FEATURES

- Foldable
- Zenmuse ready
- Hidden battery
- 1.2mm carbon frame
- 30mm booms
- ESC inside
- Quick release landing gear

A DAY WITH A HYBRID

No one can say for certain what the destiny of the automobile will be, but one thing is for certain: hybrid and full electric automobiles are here to stay for the foreseeable future. We spend 24 hours with Porsche's Panamera S E-Hybrid to get a taste of hybrid technology and see if they are really the future.

Text by *Kenny Yeo* Photography *Jasper Yu* Art Direction *Ken Koh*

In light of available evidence, it is hard to argue against global warming. One of the direct contributors to this phenomenon is the increase in greenhouses gases trapped in the atmosphere. According to studies, in 2011 in the United States alone, over 6 billion metric tons of greenhouse gases in the form of carbon dioxide was released into the atmosphere, and that roughly 28% of this was caused by transportation in the form of cars, trucks, ships, planes, etc.

Today, the majority of cars are powered by internal combustion engines that run on gasoline and diesel. Although engines have become increasing efficient, these engines are innately inefficient. In fact, when an internal combustion engine burns fuel, only about 25% to 30% of the energy released is used to provide motive force, the rest is used to overcome friction, turbulence, power auxiliary components such as the oil and water pumps and also lost to the atmosphere as heat and noise.

Electric-powered cars can help our current predicament as electric motors

> **"They offer the best of both worlds - the practicality of a traditional internal combustion engine car and the efficiency of electric cars."**

are considerably more efficient in their use of stored energy and can effectively convert around 80% of stored energy (in the form of lithium-ion batteries) into motive force. However, they are limited by current technologies. For example, electric cars still suffer from limited range and the time it takes to charge batteries are still miserably long. Additionally, there is a serious lack of infrastructure to support these types of cars to make them practical enough for mainstream adoption and widespread use.

As a result of the limitations of present electric car technologies, hybrid-powered cars are seen as the perfect solution to the environmental conundrums that we face. Because hybrid-powered cars typically rely on both an internal combustion engine and one or more electric motors for propulsion, they offer the best of both worlds - the practicality of a traditional internal combustion engine car and the efficiency of electric cars.





CARS SPECS

Engine:
Supercharged 3-liter V6
Total power:
16hp - 333hp (engine) and 95hp (electric motor)
Total torque:
590nm combined
Transmission:
8-speed Tiptronic S
0-100km/h:
5.5 seconds
Top speed:
270km/h
Electric range:
up to 36km
Weight:
2095kg
Price:
TBA

TYPES OF HYBRIDS

Broadly speaking, hybrids cars fall under three main categories depending on their capabilities.



Mild Hybrids
Mild hybrids refer to cars with limited hybrid utilization. In the case of automobiles, it means that they cannot run solely on batteries alone - the engine cannot be switched off. Some examples of mild hybrids include the Honda's CR-Z and Insight and Mercedes-Benz's S400 Hybrid.



Full Hybrids
Full hybrids, sometimes known as strong hybrids, are hybrid cars that can run solely off batteries, just off the engine or a combination of both. The main difference between full and mild hybrids is that the former can run purely on electricity, albeit for a limited range. Most hybrids are full hybrids and some examples include the Toyota Prius, Chevrolet Volt and even the new McLaren P1 and Porsche 918 Spyder hypercars.

Plug-in Hybrids
Some full hybrids are also known as plug-in hybrids. As the name suggests, these cars have batteries that can be recharged by plugging into the electric grid either via regular wall sockets or using specialized charging equipment. They can then use this energy that was stored whilst being plugged in to travel for a limited range before activating their internal combustion engine to increase range. An example of a plug-in hybrid is Porsche's Panamera S E-Hybrid.



FUEL SIPPER

How does the Porsche Panamera S E-Hybrid match up against other hybrids and some of the most popular and outrageous cars on our roads? (All figures based on manufacturer's claims.)

Porsche Panamera S E-Hybrid: 3.1L / 100km



Toyota Prius: 3.9L / 100km



Honda CR-Z: 4.9L / 100km



Toyota Altis: 6.5L / 100km



Kia Forte K3: 6.8L / 100km



Honda Odyssey: 7.9L / 100km



Mercedes E200: 6.1L / 100km



Audi A6 2.0 TFSI: 6.5L / 100km



HYBRID DRIVETRAINS

The drivetrain refers to the group of components used to generate and deliver power to the road. And generally speaking, hybrid drivetrains fall into three broad categories - series, parallel and series-parallel - and differ in the way that their electric motors are used to augment the car's drivetrain. Let's find out how by beginning with the series hybrid drivetrains, which is the simplest of the three.

Series

Series hybrids are so-called because only the electric motor is used to drive the wheels, the internal combustion engine is only there to drive a generator, which charges the electric motor during long distance driving. Essentially, these are really electric cars with an onboard generator that is powered by an engine.

The series hybrid drivetrain attempts to reconcile the weakness of the two forms of motors. Electric motors are highly efficient and provide good torque over a wide speed range, but unfortunately, batteries take ages to recharge and charging stations are not as widespread as gas stations. On the other hand, the traditional internal combustion engine draws energy from fuel, which can be replenished quickly and easily. But, it is only at its most efficient when running at a constant speed.

As such, the electric motor provides the motive force, so that the internal combustion engine can be designed to run at maximum efficiency to power the generator.

Series hybrid vehicles are designed primarily for use in urban environments where commutes are generally shorter. This way, they can be powered solely by batteries, thus keeping emissions down, and relying only on the internal combustion engines when trips out of town are required.

Parallel

Parallel hybrids get their names because their drivetrains are designed in such a way that the internal combustion engine and electric motor are powering the car at the same time. The premise behind the parallel hybrid drivetrain is for the electric motor to assist the engine in providing energy to the wheels, so that car makers can downsize the engine but still maintain the same level of performance.

Because the electric motor is only there to assist the engine and not take over duties completely, cars with a parallel hybrid drivetrain typically use smaller battery packs. The smaller battery packs along with the smaller engine helps reduce vehicle curb weight, which also helps improve overall fuel efficiency. Since cars with parallel hybrid drivetrains cannot run on batteries alone, they are also known as mild hybrids.

Since the batteries in parallel hybrid systems are small, they are typically recharged using regenerative braking or via the engine during cruising when power demands are low. Alternatively, if the drivetrain is setup such that the electric motor drives one axle and the engine drives the other, the batteries can be charged by loading the electrically-driven wheels during cruising. Such a setup is capable of providing four-wheel-drive.

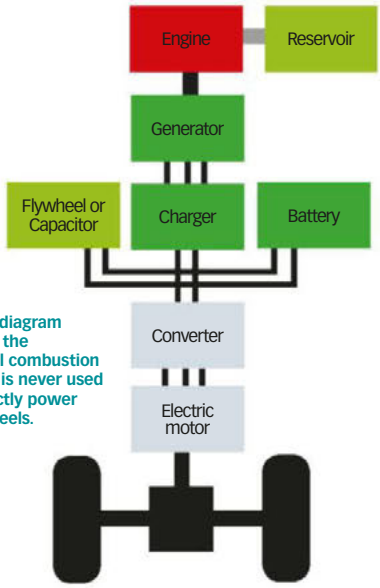
Series-Parallel

The series-parallel hybrid drivetrain, also sometimes known as the power-split drivetrain, is the most common system used in hybrid cars today. This was popularized by the Toyota Prius. It is the most complex, but it is claimed to offer the best efficiency because if designed correctly, the engine and batteries will operate at their most efficient points more frequently.

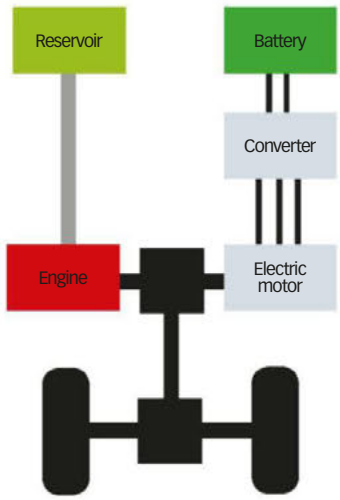
Unlike pure series and parallel drivetrains, the premise behind series-parallel drivetrain is flexibility in that the car can be powered by the electric motor and engine together or individually. Typically, this is achieved by coupling the engine, electric motor and gearbox and using automatically controlled clutches to control the drivetrain. For instance, if the car was running solely off the electric motor, the clutch between the internal combustion engine and the gearbox would be left open, while only the clutch between the electric motor and gearbox would engage.

In practical usage, what happens is that in low speed or stop-start environments such as in the city, the car will operate only using energy stored in the battery without the engine. This is where the electric motor is at its most effective because it produces maximum torque from a standstill, which is ideal for acceleration. At higher speeds or when cruising, the engine takes over because this is where the electric motor becomes less efficient.

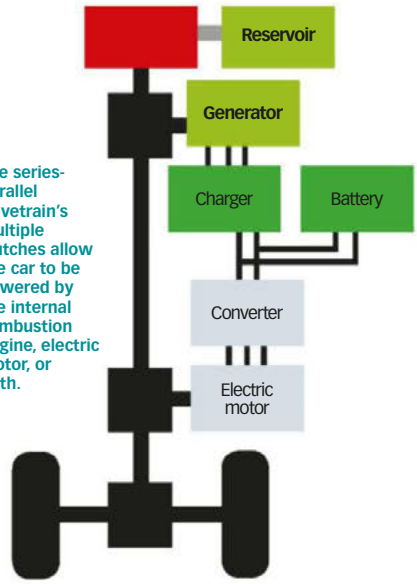
Hybrids that utilize this type of a drivetrain are also known as full hybrids and some even offer plug-in charging capabilities.



As the diagram shows, the internal combustion engine is never used to directly power the wheels.



Both the internal combustion engine and electric motor are used to provide power to the wheels.



The series-parallel drivetrain's multiple clutches allow the car to be powered by the internal combustion engine, electric motor, or both.

ILLUSTRATION KEN KOH

DRIVING THE PORSCHE PANAMERA S E-HYBRID

Let's begin by addressing the elephant in the room. At a little below US$100,000 (TBA in Malaysia), the Panamera S E-Hybrid is by no means an affordable everyday car. And even if you consider its efficiency, there is no way the Panamera S E-Hybrid is going to be more cost-effective than an affordable model from a Japanese or Korean make. That said, the Panamera S E-Hybrid has one of the best hybrid drivetrains in the market today. Hence, it is a good starting point for us to get a taste of hybrid technology.

The Panamera S E-Hybrid is powered by a combination of a traditional internal combustion engine and an electric motor. The internal combustion engine is an Audi-derived supercharged 3-liter V6 that churns out 333hp, whereas the electric motor produces 70 kilowatt or around 95hp. Together, the car has a combined power output of 416hp and 590nm of torque. That's a respectable amount of grunt, sufficient to haul the car from 0 to 100km/h in just 5.5 seconds. So, despite the eco-friendly positioning of the Panamera S E-Hybrid, this car is still a properly fast Porsche.

The Panamera S E-Hybrid has three driving modes: E-Power, E-Charge and Sport. E-Power is the default setting that the car starts in; and in this mode, the car is powered mostly by the electric motor and the internal combustion engine only comes on when absolutely necessary. To avoid drivers unintentionally summoning the supercharged 3-liter V6, an artificial step is added to the accelerator in this mode and the engine only comes on when drivers press beyond this point. As a result, the Panamera S E-Hybrid starts silently and this was slightly disconcerting

> **"Despite the eco-friendly positioning of the Panamera S E-Hybrid, this car is still a properly fast Porsche."**

experience for us since we were expecting to hear the rumble of the V6 when we started the car. Surprisingly, despite the Panamera S E-Hybrid weighing over 2 tons, the electric motor never felt insufficient or underpowered, though overtaking can be a little tricky. That said, it accelerates briskly enough and can even reach a maximum top speed of 135km/h on electric power alone.

More impressive, however, is its range. Porsche claims a maximum range of 36km is possible on a fully charged battery and we do not doubt it. Even on a half-full battery, we easily managed 20km. This is made possible by the efficiency in which the car recovers energy during normal driving. For instance, energy is recovered whenever the brakes are applied and also whenever the car goes into coasting mode, the instances where the car is "gliding" without any motive force.

The E-Charge mode is, as its name suggests, the mode to use if you want to charge the batteries. In this mode, excess energy from the internal combustion engine is used to charge the battery. Together with the energy recovered during braking and coasting, the battery charges significantly quicker. In our experience, we managed to get the battery up to around 40% charge after about 30km.

Sport mode is the setting you want to be in to experience the full fury of the hybrid drivetrain. In this mode, full performance, from both the supercharged 3-liter V6 and the electric motor, is available at any time. Together, the engine and the electric motor produce a whopping 590nm and this can be easily appreciated whenever you dig your right foot deeper into the carpet. The immediacy of the electric motor helps fills out the torque gaps nicely and it is quite impressive to see a car as large and heavy as the Panamera S E-Hybrid surge forward with such urgency. And with the various suspension settings, one can really tune to the



Panamera S E-Hybrid to feel and drive like a bona fide sports car, despite its eco-friendly positioning and immense mass.

The Long-Term Viability of Plug-in Hybrids

Plug-in hybrids profess to offer the best of both worlds - the convenience of a traditional internal combustion engine cars and the eco-friendliness of full-electric cars. After spending a day with the Panamera S E-Hybrid, we are convinced of this claim.

For short commutes, it is possible for the Panamera S E-Hybrid to drive solely using electric power. This makes it excellent for city driving. And when you are done, the Panamera S E-Hybrid can be plugged in, charged and ready to go the next day. So if used in such a manner, the Panamera S E-Hybrid functions almost like an electric car, and its internal combustion engine is only called upon for longer distance commutes or when the driver needs more power for overtaking maneuvers. And even if your daily commutes are longer than the electric range, the hybrid drivetrain does a good job of extending the overall range of the car and its energy recovery systems are useful in recycling energy that would otherwise have been wasted.



The interior is a plethora of buttons and switches.



The rear seats fold for even more boot space.



The Panamera S E-Hybrid can be identified by its acid green brake calipers.



The charging dock charges the car in just 4 hours.

However, the biggest hurdle for plug-in hybrids is the charging station. Porsche admits that the unique selling point of this car can only be realized if the driver has his own property so that the special Porsche charging station can be installed and used to charge the car. This predicament extends to all hybrid cars and not just the Panamera S E-Hybrid. Hence, significant investment needs to be made by governments to install charging stations in public and housing estates to fully appreciate the potential of plug-in hybrids. To complicate matters, there are also differences between the charging cables used for hybrids - European and Japanese makes requires cables with different connectors.

So while plug-in hybrids are touted as more efficient and cheaper to run, the reality is that the buyers who are usually in the market for such cars do not have access to a charging station nor can they install one as they please. As a result, plug-in hybrids is really only viable for folks staying on landed property that can allow for the easy installation of charging docks.

In summary, plug-in hybrids, like any other cars that rely on alternative forms of fuel such as LPG, can only be viable if they receive the necessary infrastructure and support from the government. However, with car makers exploring other forms of alternative fuels such as hydrogen, it remains to be seen if the government would be willing to invest in the infrastructure required for the widespread adoption of both hybrid and full-electric cars. HWM

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A GEEKY VALENTINE

by *Salehuddin Husin*

The problem with finding a gift for a geek is the fact that he (or she) already has the latest gadgets that they want. Let's face it, just how many iPhone 6s or PlayStation 4s does someone need anyway? So, how do you get a geek excited about Valentine's Day? Introduce technology into their everyday lives; the more elaborate the better.



DJI INSPIRE 1
WWW.DJI.COM

If you think the Parrot Drone's too casual and entry level, the Inspire 1 will satisfy you completely. It's a drone that comes with a 4K camera that you can stream footage straight to a connected smart gadget, perfect for stalking your Valentine while remaining out of sight and establishing your alibi. If you get another controller, you and a fellow stalker enthusiast can control the drone simultaneously, with one controlling flight while the other mans the camera.



INTEL MICA
WWW.OPENINGCEREMONY.US/MICA

The MICA's the result of collaboration between Opening Ceremony and Intel. It's a smart device that combines every feature you'd need into a chic bracelet (being a geek doesn't mean you can't be fashionable). There's a discrete display at the base that informs you of all your important events (like watching The Flash) as well as showing you messages and other notices. The bracelet even vibrates to alert you when something requires your attention, without alerting anybody else to it.



VIATOR GEAR RFID ARMOR PASSPORT WALLET
WWW.VIATORGEAR.COM

You're you. You don't want to be Geek84 offline. The RFID Armor passport wallet will come in especially handy. It blocks RFID signals, making data interception from your cards and ID impossible so identity theft (and credit card theft) isn't an issue. It's a bit bulky, but that's the price you pay for security.



SKYLOCK SOLAR POWERED LOCK
SKYLOCK.CC

The Skylock Solar Powered lock is an automatic lock (you can manually unlock it too) that's solar powered, but the cool thing about it is that it hooks up with your smartphone and lets you control it with an app. You can even set it to auto unlock based on proximity. Who needs keys?! The Skylock isn't technically available yet, but if you're interested, you can already pre-order it on the device's website.



ETON FRX5
WWW.ETONCORP.COM

The FRX5 is an emergency weather radio with lights and USB charging capability that can be powered via electricity, batteries, solar powered, hand cranked or by tears. OK, maybe not tears. Apart from wind and water, there's pretty much no other energy source that the FRX5 doesn't cover. It's perfect for camping out while stalking somebody with the DJI Inspire 1. You can even charge the drone when it's low on power. Win win!



ZEISS VR ONE
WWW.ZEISS.COM

The Zeiss VR One Headset uses the company's precision lenses teamed up with your own smartphone display to create an immersive virtual reality experience. It supports any smartphones with a display between 4.7- and 5.2-inches, and offers a see-through front shield for augmented reality apps, as well as ports to allow access to the device's headphone and charging jacks.







Geek-Proof Café #1

PODGY & THE BANKER+

Operating Hours: 8.30am to 10.30pm
Complimentary Wi-Fi: Yes
Seating Area: Al-Fresco, Indoor
Milk: Soy, Skinny Available

Nestled in the exclusive neighborhood of Mont Kiara, Podgy & The Banker+ is an offshoot of the Sri Hartamas premise. Naturally-lit with white walls and concrete floors, the cozy yet modern café sees a steady stream of regulars and newcomers each day, including residents from the Verve Suites and nearby townships.

Opened since November last year, expect friendly chatter with the staff as you pick up your coffee on the go, or choose from a daily selection of freshly baked cakes and pastries to go with your cup of hot chocolate or afternoon tea. The cafe also serves sandwiches, salads, and snacks, including a veritable flavor of Fatbaby ice cream.

Casual al-fresco and indoor seating are available, great for a lazy weekend with your significant other. The relaxing atmosphere attracts a fair share of expatriates, groups of mom, and working professionals on laptops.



CASIO G'MIX GBA-400
WORLD.G-SHOCK.COM

As a geek, being at the forefront of tech is important. Controlling your music via Bluetooth headphones? So passé. The G'MIX GBA-400 lets you do the same thing but via a watch. Feel like James Bond as you fiddle with dials. Instead of lasers coming out from your watch, it's invisible Bluetooth signals! Use those signals to find your phone if it's missing with the built-in Phone Finder function or search for the music you want via Music Search.



SONY WALKMAN NWZ-A15
WWW.SONY.COM.MY

Weighing in at just 66g, and measuring just 43.6 x 109 x 8.7mm, the Sony NWZ-A15 is the world's smallest High Resolution Audio player, and it comes chock-full of features. A microSD slot allows you to easily add to the 16GB of inbuilt storage capacity, while the on-board battery will give you 30 hours of HRA playback and 50 hours of MP3 playback – plenty to get you through the day.







Geek-Proof Café #2

THREE LITTLE BIRDS COFFEE

Operating Hours: 8.00am to 11.00pm (Mon to Thurs), 8.00am to 12am (Sat), 9.00am to 10.00pm (Sun)
Complimentary Wi-Fi: Yes
Seating Area: Al-Fresco
Milk: Soy Available

Located in the family-oriented neighborhood of Desa ParkCity, Three Little Birds Coffee is one of many eclectic mixes of F&B outlets at The Waterfront to offer a majestic view of The Central Park lake. The open-air concept, combined with the abundance of fresh air, make this cafe the ideal hangout for dog owners and regulars alike.

As the second outlet to the Sentul original, the cafe has been brewing its El Salvador and Brazilian blends since August last year, while also serving delicious lunches from Awesome Canteen, tea selections from Hojo Tea, ice creams from The Last Polka, as well as a delectable selection of cakes and desserts.

Seats are plentiful, including a long table that can easily accommodate a party of 12. Morning pick-me-ups aside, working professionals can be found having casual discussions or typing away on their laptops on most afternoons. A great chill-out place for the discerning couples.

TEST

LAB RESULTS

Every month behind the doors of our super secret gadget testing facility, the latest tech products are put through their paces using industry-recognized benchmarks and our own blend of real-world usage scenarios. Here are our findings.

MORE INSIDE>

AORUS X7 PRO
Two is always better than one.

PHILIPS AJT3300
Bedside companion.

PLEXTOR M6E BLACK EDITION
Dark horse.

SONY WALKMAN NWZ-A17
Quality reassured.

HOW WE RATE:

Products are rated on a scale of **1** to **10**; **1** being so abysmal, it should be a crime to sell it, and **10** being almost perfect. Come now, nothing is perfect. An Editor's Choice may also be awarded based on unique merits.

TEST BEST PERFORMANCE HWM MALAYSIA

TEST BEST VALUE HWM MALAYSIA

TEST EDITOR'S CHOICE HWM MALAYSIA



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VS
LG UB980T
•
PANASONIC VIERA AX800
•
SAMSUNG HU8500
•
TOSHIBA PRO THEATRE L9450

BEYOND HIGH DEFINITION

Buying a 4K TV now makes more sense than previous years due to the maturing standards. And more are due to arrive in a few months' time after CES 2015. If you don't want to wait, or don't intend to spend top dollar for the latest and greatest, here are some of the current high-end LCD models that you can pick up in the store right now.

Text by *Ng Chong Seng*
Photography by *Darren Chang*
Photography Assistant by *Angela Guo*
Art Direction by *Ken Koh + Ian Chong*



LG UB980T

While OLED TVs have seen price drops recently, they remain too expensive for most people, and limited in variety compared to LCD TVs. Which is why LG, who continues to invest heavily in OLED, still churns out new LED LCD TV series on a very frequent basis. Available in 65, 79, 84, and 98-inch screen sizes, the UB980T is LG's flagship 4K TV, and so naturally, it packs top-end specs and all the bells and whistles that the company can come out with, including an Ultra Clarity Index of 1,300, sound co-developed with Harman Kardon, a maximum 5.2-channel, 120W speaker system, a built-in 8-megapixel camera, support for 4K HEVC 60p decoding, and WebOS.

Refreshing WebOS UI. Sound designed by Harman Kardon.

Occasional UI sluggishness. Few rough edges in WebOS 1.0.

Now, the UI refresh brought about by WebOS is obviously right from the get-go. From tuning the TV channels, connecting to your Wi-Fi network, to pairing with the LG Magic Remote, you're guided by an animated character named Bean Bird. All of a sudden, boring and technical configurations now seem fun and easy. And it goes deeper: there's also a new launcher, a left-to-right scrollable straight line menu that runs along the lower portion of the screen. The idea is to allow you to browse through service or content options without having to navigate away from the existing view, not to mention letting you watch a show, play a game, or browse the Internet while searching or downloading other content at the same time.

WebOS will also know when you plug in an external device and recognize what kind of device it is, and then pops up a menu with all the relevant options. And there's a Live Menu with channel and recording options that you can open and keep within easy reach while watching TV. The ability to resume playback (say, of a YouTube video) after you've switched inputs and come back to it is also delightful. All in all, even as a 1.0 release, we already like how WebOS has panned out on LG's TVs. We're excited to see how this year's WebOS 2.0-based TVs fare.

Design-wise, we're fans of LG's hardy 'stable screen', though not so much of the protruding stand that runs the wide of the panel. Connectivity-wise, you're pretty much covered by four HDMI ports (of which three support HDMI 2.0) and three USB ports. Along with support for Intel WiDi, Miracast, and MHL, you've got all the tools to get content on your mobile device onto the big screen at your disposal.



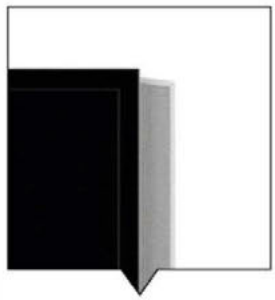
AT A GLANCE

HDMI Ports
4

3D
Passive 3D

Built-in Camera
Yes

Price
RM17,999 (65-inch)



The UB980T's front-facing speaker system sounded pretty good.



The TV has a built-in pop-up camera.



Point and click, use the scroll wheel, or speak to it, the Magic Remote offers various control modes.

PANASONIC VIERA AX800

In 2014, Panasonic introduced the Life+ Screen category into its TV lineup. Reserved for its higher-end models that typically come with better image quality and more premium design, TVs carrying this badge - such as this AX800 - also sport the company's newest smart TV interface.

Taking center stage here is My Home Screen, which as its name implies, is a user-customizable home screen for your apps and content. It's also capable of giving you new content recommendations and lets you search for content using voice. And through the clever use of the built-in camera and proximity sensor, the screen can pop up information (e.g., time, notifications, weather) automatically when it detects you're near. Coupled with things like a media player that supports a variety of formats (including RMVB), easy mirroring of smartphone or tablet images onto the screen, DLNA support, and built-in Wi-Fi, Panasonic high-end TVs are every bit as smart as those from the two Korean giants. And for what it's worth, the AX800 has a dual-core processor to keep operations snappy.

Of course, for a TV, image quality is still the most important. Panasonic has abandoned the plasma technology in 2013, and the AX800 (available in 58 and 65-inch screen sizes) is one of the first results of the company's renewed focus on LCD and 4K. Two key features here are the Studio Master Color panel and Studio Master Drive, which Panasonic says enables the TV to reproduce deep blacks and a wide color gamut. Aided by Panasonic's Local Dimming Pro tech (the AX800 is LED edge-lit), the company is gunning for a plasma-like performance on an LCD TV. We shall see if it succeeds in the coming pages.

Good picture presets. Suited for both average consumers and professionals.

Super-heavy stand. Only one 4K 50/60p-capable HDMI input.

For those interested in the nitty-gritty, yes, the AX800 has an HDMI 2.0 port that supports 4K 60/50p input. HDCP 2.2 and HEVC decoding, standard features found on 4K TVs launched in 2014, are also onboard. If you're looking for standout differences, then know that the AX800 is also THX 4K-certified and has a DisplayPort terminal.

The AX800 is also a 3D TV, and employs an active 3D system. 3D is a less prominently advertised feature these days, but there's also no denying that 3D content are much easier to get than 4K content. For the most part, however, active 3D on a 4K panel doesn't offer much of a resolution improvement over active 3D on a 1080p set. If you're a fan of both 4K and 3D, we recommend that you take a look at LG's 4K TVs that use passive 3D.



AT A GLANCE

HDMI Ports
4

3D
Active 3D

Built-In Camera
Yes

Price
RM17,999 (65-inch)



Only one of its four HDMI ports supports 4K 60/50p input. But there's a DisplayPort input.



There's an integrated Full HD camera on the TV.



We like the remote's big buttons and giant touchpad.

SAMSUNG HU8500

While Samsung has reserved its best technologies for its flagship HU9000 curved TV, the HU8500 (available in 48, 55, 65, and 85-inch screen sizes) is still very much a high-end TV, sporting features like a Clear Motion Rate of 1,000 (it's a 100Hz panel), a new local dimming method called UHD Dimming, a quad-core processor to ensure operation smoothness, and a built-in DVB-T2 tuner for tuning in to digital TV broadcast. But unlike the HU9000, the HU8500 lacks a built-in camera. Design-wise, we like that Samsung didn't try to be too fancy, and has gone for a simple brushed metal stand (non-swivel though) and a thin metal trim around the frame. The focus is on the giant panel, and rightly so.

Speaking of future-proofing, arguably our favorite feature of the HU8500 (in fact, for all of Samsung's 4K TVs) is its ability to upgrade to the latest hardware (sans the panel, of course) and software simply by plugging in an external box that Samsung calls the One Connect box or Evolution Kit down the road. With this upgrade path, your investment will not become obsolete as fast compared to other TVs. That said, it's not as if the HU8500 is lacking anything out of the box, it already supports standards like HEVC, HDMI 2.0, MHL 3.0, and HDCP 2.2.

Samsung's 2014 Smart Control remote connects to the TV via Bluetooth, and is delightful to use. We find the touchpad handy for scrolling webpages; and even for menus that don't support it, there are arrow keys to fall back on (or you can just use the standard remote). On the UI front, Samsung continues to improve its Smart Hub interface, and this version has a new Multimedia panel that combines the previous Photo, Video, Music, and Social panels. Compared to LG's generous use of animations, it can still look a tad intimidating, especially to non-advanced users.

Good set of smart TV features. Competitively priced.

Doesn't sport all of Samsung's top-end hardware features.

Another feature we like is Multi-Link Screen, a contextual multitasking mode that lets you split the screen real estate, so you can do things like having live TV on one half of the screen and contextual search results on the Web browser, relevant YouTube video content, or a compatible app up on the other half at the same time. A Soccer mode that allows you to enlarge a selected area on the screen is also pretty nifty, but we aren't fans of the pumped up colors and contrast this mode brings.



AT A GLANCE

HDMI Ports
4

3D
Active 3D

Built-in Camera
No

Price
RM12,999 (65-inch)



You can upgrade the TV's hardware if you get a One Connect box down the road.



If you want to do Skype video calls on the TV, you can get the optional VG-STC4000 camera.



We like the smart remote's four direction keys and touchpad; the latter is great for scrolling webpages.

TOSHIBA PRO THEATRE L9450

To ensure that smart TVs remain easy to use, TV manufacturers have been sweating the user interface and user experience details in the last few years. We saw LG turning to WebOS in 2014, and Samsung's continued efforts to refine its Smart Hub interface. If you aren't a fan of either, Toshiba's Android approach provides another credible alternative.

Starting with the L4300 series in 2013 that came with Android 4.2 Jelly Bean, 2014 is the second year Toshiba is using Android as a smart TV platform for its TVs. In fact, the integration has now come to the Japanese company's 4K TV lineup, like the L9450 series we've here. Regardless of the Android version (this time, it's Android 4.4), the appeal is the same, and that is you get to enjoy the vast number of apps (including games) on the Google Play store on a big-screen TV. The only gripe we've here is that one can only download free apps, but not pay for apps through the TV. Otherwise, it's a very familiar environment that Android mobile users are accustomed to. Used to rearranging home screen icons, downloading interactive wallpapers, or setting up profiles for different users on your Android smartphone or tablet? You can do the same on the L9450.

Of course, being Toshiba's flagship 4K TV, the L9450 (available in 50, 65, and 84-inch screen sizes) is packed with sophisticated hardware components and software features, including the company's third-generation Cevo 4K video processing engine for natural color reproduction and full HD-to-4K upscaling, Active Motion & Resolution Plus 3,100 that reduces motion blur during fast-moving sequences, DVB-T2 support for digital TV broadcasting, HDMI 2.0, screen mirroring, and even a Football mode that attempts to render smoother footage, with better details and natural-looking grass. Sound isn't neglected either, and the 50 and 65-inch L9450 sport a compact 'Labyrinth' speaker system capable of 30W of audio output. The Labyrinth system isn't required on the giant 84-inch model, as its 40W system already goes very loud.

Easy to expand functionality through Android apps.

No built-in camera; doesn't support 3D.

Knowing that most people don't tweak or calibrate their TVs, the L9450 also incorporates two features - Intelligent Scene Optimizer and Intelligent Auto View - to ensure that you always get the best possible image quality. The former basically detects the content and input source to intelligently adjust picture and sound settings, while the latter analyzes signal and ambient lighting conditions to fine-tune the color management system (e.g., backlight, color temperature, gamma, saturation, sharpness) automatically. Oh, lest we forget, the L9450 is the only TV here that doesn't do 3D.



AT A GLANCE

HDMI Ports
3

3D
No

Built-in Camera
No

Price
RM13,999 (65-inch)



The L9450 has three HDMI 2.0 ports at the side.



Of the TVs here, the L9450's stand is the easiest to assemble, and it looks good.



The key feature on this second and smaller bundled remote is the trackpoint stick.

FLATSCREEN 4K TV PERFORMANCE - LG UB980T

Decked with the best technologies that LG has to offer, the UB980T's mostly excellent image quality came as no surprise to us. The IPS panel went pretty bright in our tests, and that bodes well if you're the kind who enjoys plenty of sunlight in the living room. But be careful of positioning to avoid reflections.

With over 8 million pixels, the UB980T shone when fed with properly done 4K content. Case in point: the sharp footage and natural-looking colors of the dishes in the Food Odyssey 4K documentary that came in this 500GB hard drive that LG used to give to buyers of select 4K TV models couldn't be more lifelike. The Wolverine movie (also in the hard drive) also hardly put a foot wrong, and to quote our own notes, "the red strands of Yukio's hair were impeccably rendered".

With plenty of details, depth, and sharpness, 3D images also looked amazing on this passive 3D TV. If you love watching 3D content, the UB980T is the TV to get. Coupled with the 90W, 5.2-channel front speakers of our 79-inch test unit, we truly had a cinema-like experience.

That said, the UB980T wasn't without faults. Comparing out-of-the-box performance, we found colors on the UB980T a tad muted than those on the Samsung HU8500. This is largely due to the IPS panel LG uses, which although improves viewing angles, also makes colors 'pop' less than rival panels. That said, the TV offers plenty of image controls (including a 20-point white balance control), so advanced users can tweak to their heart's content. For the average user, the ISF Expert 1 mode is a good preset for critical viewing; and it gave us accurate colors from the get-go. Unfortunately, the dreaded backlight blooming was present across all LED Local Dimming settings, but we managed to lessen the effect by lowering the backlight intensity. Lastly, resolution in fast-moving scenes remained good with TruMotion engaged.



The new launcher lets you browse through content options without having to navigate away from the existing view.



The colorful and bright image makes this TV great for daytime viewing.

FLATSCREEN 4K TV PERFORMANCE - PANASONIC VIERA AX800

The AX800 exhibited very good color accuracy out of the box, helped no doubt by its excellent grayscale tracking. Panasonic has apparently designed this TV for critical watching, which is not hard to deduce from the pro-sounding pictures modes like Cinema, THX (Cinema and Bright Room), Professional 1, and Professional 2. The THX modes have a gamma response of about 2.2, the widely used standard for TV and film. The two Professional modes went close to 2.4, and both are excellent choices if you prefer a more contrasty image. Either way, the AX800 has a good suite of color management controls (including ISF controls), so it's not hard for well-equipped users to get near reference results.

In terms of black level response, the AX800 performance was as good as the Samsung HU8500, especially when the lowest Adaptive Backlight Control (which controls local dimming) was engaged. A letterbox dimming mode, akin to the Cinema Black setting we saw on Samsung's flagship curved TV but not on the HU8500, darkened the top and black bars even further. All little details that should delight enthusiasts who are buying this TV for dark room viewing.

All in all, image quality-wise, the AX800 hardly faltered regardless of the content we threw at it. Superman Returns still looked mighty good after upscaling, and the slight noise we observed in some dark scenes are inherent of the movie rather than the fault of the TV. There was a bit of dirty screen effect, though we think most people won't notice it.

Interestingly, the TV has a '1080p Pixel by 4pixels' mode for making 1080p images look good on a 4K display, but we found differences (vs. upscaling) to be minor after staring at the Blu-ray version of Harry Potter and the Deathly Hallows: Part 2 for a good hour. Motion resolution was also high, thanks to Panasonic's well-implemented frame creation tech; and 3D images looked vibrant, and suffered slightly less crosstalk than the Samsung set.



The tons of professional controls will delight advanced users.



Minute banding aside, the AX800 has excellent upscaling and black level response.

FLATSCREEN 4K TV PERFORMANCE - SAMSUNG HU8500

At a viewing distance of 1.5m, it was hard not to be impressed by the big screen and the boatloads of details that the HU8500 brought. Even though the HU8500 didn't come with the PurColor and Auto Depth Enhancer technologies like the curved HU9000, the sense of 3D-ness was very much present in the Grand Canyon Adventure, a 4K documentary that was on the Samsung UHD Video Pack (basically a hard drive preloaded with 4K material). In fact, using just the Standard picture mode and without doing any kind of calibration, we found images to exhibit just the right amount of 'pop'.

The HU8500 also excelled when we switched to 1080p content. Even though it had been upscaled, details in the Blu-ray version of Skyfall still looked super-sharp. We also didn't experience any judder for 1080p24 2D material.

Although the HU8500's local dimming method relied on fewer zones than the curved HU9000, we found the former's backlight control to work well across different types of materials. Sure, during low APL scenes in The Dark Knight, its black level performance, while good, was still no match for OLED TVs, but in movies with primarily high APL scenes and bright colors, it was capable of the brightest whites. The TV also exhibited very good motion clarity, thanks to effective black frame insertion implementation; even with the LED Clear Motion setting turned on, there was hardly any flicker. Lastly, 3D image brightness remained high, and the slight crosstalk of the active 3D system didn't ruin the viewing experience.

For audio, the small front-firing speakers into the TV's cabinet actually did quite a good job, as we could quite make out the many multi-directional audio moments in the Star Trek Into Darkness movie. The HU8500 also incorporates a Dolby MS11 multi-stream decoder that supports decoding of many of today's popular audio formats.



The streamlined Smart Hub UI makes finding what you want easier.



Deep blacks, wide dynamic range, and excellent upscaling are the hallmarks of this TV.

FLATSCREEN 4K TV PERFORMANCE - TOSHIBA PRO THEATRE L9450

Interestingly, only the 50 and 65-inch L9450 use a wide gamut panel (the latter is the one we tested), which Toshiba says sports 14% wider color gamut than its 2013 lineup. Also, these two smaller models' panels go up to 75% brighter than last year's model, thanks to the use of direct LED backlighting with local dimming areas. The ginormous 84-inch model on the other hand uses an LED edge-lit backlight unit instead. So, buyers beware.

We observed wide viewing angles and accurate colors on the L9450. Like the LG UB980T, colors were well saturated but not crazily vibrant out of the box. Contrast, while good, didn't go as high as the Samsung HU8500. For an LED LCD TV, it exhibited high brightness (good news for those with bright rooms) and there wasn't much of a dirty screen effect. We attribute these to the new backlighting system and the pixel structure tweaks that let more light comes through.

The L9450 also had a decent showing when it came to black level response. Sure, the Panasonic and Samsung sets still fared better, but the L9450 wasn't far off. The difference was more apparent in a dark environment, as we saw more backlight transitions on the L9450. Reducing the backlight got rid of many of the distractions, but advanced users would not be pleased by the crushed shadows details.

Of course, with a 4K panel, the L9450 was capable of showing tons of details when fed with proper 4K signals. The Cevo 4K engine worked rather well, upscaling 1080p content to pseudo-4K convincingly enough. Motion resolution was noted to be very good, and credit for this has to go to the Active Motion & Resolution Plus tech. It's hard to decipher what the AMR+ 3,100 spec really means, other than the fact that it plays around with the refresh rate (likely 100Hz natively) and the backlight system to produce smooth, high-res images during motion.



The biggest draw of running Android OS? Apps, of course!



We applaud the L9450 for its bright picture, saturated colors, and clear sound from the Labyrinth speakers.






MODEL	LG UB980T	PANASONIC AX800	SAMSUNG HU8500	TOSHIBA L9450
TV TYPE	LED LCD	LED LCD	LED LCD	LED LCD
BACKLIGHT TYPE	Edge-lit with local dimming	Edge-lit with local dimming	Edge-lit with local dimming	Direct-lit with local dimming
RESOLUTION	4K (2,160p)	4K (2,160p)	4K (2,160p)	4K (2,160p)
REFRESH RATE	UCI 1,300	2,000Hz BLS IFC	CMR 1,000	AMR+ 3,100
SPEAKER OUTPUT	70W	18W	60W	30W
SMART TV	Yes	Yes	Yes	Yes
PLATFORM	LG WebOS	Panasonic Life+ Screen	Samsung Smart Hub	Android 4.4.2 KitKat
BUILT-IN CAMERA	Yes	Yes	No	No
3D SUPPORT	Passive	Active	Active	No
DVB-T2	Yes	Yes	Yes	Yes
HDMI PORTS	4	4 (1 supports 4K 60/50p)	4	3
DISPLAYPORT	No	1	No	No
USB PORTS	3	3	3	3
POWER CONSUMPTION	N/A	289W	246W	429W
DIMENSIONS (WITH STAND)	1,560 x 884 x 264mm	1,466 x 887 x 368mm	1,449.3 x 294.9 x 873.5mm	1,461 x 896 x 304mm
WEIGHT (WITH STAND)	39.9kg	59kg	28.4kg	26.5kg
PRICE (65-INCH)	RM17,999	RM17,999	RM12,999	RM13,999

AND THE BEST FLATSCREEN 4K TV IS



SAMSUNG HU8500

Let's get this straight: there's really no perfect 4K TV at the moment. We've given the nod to the Samsung HU8500 (the one we tested was the 65-inch UA65HU8500KXXS) simply because it made the fewest mistakes. In short, we noted excellent upscaling, very good black level response, and a good set of smart TV features. The pretty HU8500's ability to upgrade its hardware shouldn't be ignored too. The Panasonic AX800's image quality is equally good, but its UI is beginning to look dated and its speakers are a tad weak. The LG UB980T is also a good TV, especially for daylight viewing; and it has the best 3D performance. Its slightly weaker black levels and backlight control are what held it back. If you don't need 3D or prefer an Android UI, the Toshiba L9450 is worth considering. It has very decent image quality, though the UI is a bit clunky. For non-hardcore users, its sensible price tag is another big draw.

GET SMART: THE WRIST WARS

The wearable device market is quickly becoming the most hotly contested space in technology. And for almost every company invested in the area, the most lucrative piece of real estate is your wrist. But with so many choices out there, which smartwatch is the best?

Text by *James Lu*
Photography by *Tan Wei Te*
Art Direction by *Ken Koh*





VS

ASUS ZENWATCH

•

MOTOROLA
MOTO 360

•

LG G WATCH R

•

SAMSUNG GEAR S

ASUS ZENWATCH

The ASUS ZenWatch is the only smartwatch in our shootout sporting a square shape face. That's not to say it's boring though. The ZenWatch's chassis is made from two layers of stainless steel sandwiching a classy rose gold steel midsection. While the ZenWatch's display may be square, the frame is rounded, and the display itself has a slight curve, softening the watch's appearance. These soft touches make the ZenWatch the most unisex and classy of the smartwatches in our shootout. Unfortunately, the bezel surrounding the screen is rather thick, and detracts from its overall sleekness.

The ZenWatch comes fitted with a soft tan-colored stitched genuine leather strap, with a metal deployant clasp, but you can easily swap it for any standard 22mm watchstrap if the color or style isn't to your liking.

Unlike the prominent buttons on our other smartwatches, the ZenWatch's settings button is hidden on the underside of the watch. It's fairly obvious that ASUS didn't design the button to be used often as it's actually quite tricky to press with the watch worn on your wrist. As such, the main points of interaction with the ZenWatch are through its touchscreen and voice commands.

The ZenWatch has a 1.63-inch, 320 x 320 pixel AMOLED display. On paper, the ZenWatch's 278 ppi should give it about the same clarity as the Motorola Moto 360, only slightly worse than the Samsung Gear S and LG G Watch R. The reality however is quite different, as it's noticeably the worst of the lot. The display has a noticeable haziness, and the glass on top of the screen looks extra thick too.

Classy, unisex design. Useful exclusive apps.

Erratic heart-rate monitor. Thick bezel. Hazy screen.

Like the G Watch R, the ZenWatch is powered by a Qualcomm Snapdragon 400 processor and runs on Android Wear. ASUS has also included a few of its own apps, including some exclusive watch faces, and a nice compass app. There's also a useful camera remote app that lets you use the watch as a viewfinder for your ASUS phone's camera. As with most smartwatches today, the ZenWatch includes a heart rate monitor and accelerometer for activity tracking. There's also an exclusive ASUS health and fitness app.

The ZenWatch has a unique way to measure your pulse. Instead of using an optical light sensor like most other wearables, you place two fingers on each side of the metal frame at the same time, completing an electrical circuit. Unfortunately, this isn't any faster than other methods, and seems to be less accurate too, with erratic readings often over 100 bpm despite the fact that we hadn't done anything for the past five minutes.

Battery life on the ZenWatch was decent but not amazing. We were able to get about 18 hours out of it, but definitely requires charging every night.



AT A GLANCE

OS
Android Wear

Display
1.63-inch AMOLED

IP Rating
IP55

Dimension
51 x 39.9 x 7.9~9.4 mm

Weight
75g

Price
US$199



The ZenWatch's settings button is hidden on the underside of the watch.



The ZenWatch uses a clip-on charging cradle that fits snugly onto the back of the watch.

MOTOROLA MOTO 360

The Moto 360 was the first round face smartwatch. It sports a sleek minimalist design complemented by a premium build of glass and stainless steel, with a leather strap made from high-end Horween Chicago leather. Having said that, while the Moto 360 is undeniably stylish, it does feel a little bulky on its thin strap, both in terms of width and overall height, and the net result makes it look more like a disc on a strap than a watch.

The watch boasts a large 1.56-inch 320 x 290 pixel resolution display (277 ppi) with fairly decent viewing angles and good brightness. Compared to the other round watch in our shootout, the LG G Watch R, the Moto 360's round screen is around 39 percent bigger, with much thinner bezels, which seems like it would be the better circular display, except for the fact that the Moto 360's display isn't actually a circle. In Motorola's quest for a round screen with the thinnest outer bezel possible, it ended up adding a little black bar at the bottom of the screen that cuts the circle off. That black bar houses an ambient light sensor for auto-adjusting screen brightness. It's not a total deal-killer, but for a watch with a beautiful, clean look everywhere else, this perfection-ruining flaw certainly stands out. As a result of the bar, white watch faces all end up looking like they have a little slice cut out of them, or even worse, a whole section of dead pixels.

Beautiful glass. Steel construction. Large display.

Underpowered processor. Weak battery life.

Like the G Watch R, on the side of the Moto 360, there's a little home button that looks like a watch crown that can be used to activate the watch or quickly bring up the settings menu. On the back of the watch, you'll find an optical green LED heart-rate monitor and inside, the 360 also has a pedometer for activity tracking. We found both the heart rate monitor and step counter to be reasonably accurate, with fairly consistent results overall.

Like the G Watch R and ZenWatch, the Moto 360 runs on Android Wear, but unlike the Qualcomm Snapdragon 400 processors found in the LG and ASUS watches, the Moto 360 uses a considerably less powerful Texas Instruments OMAP 3 processor. As a result, transitions and animations are just a little bit slower on the Moto 360.

When the Moto 360 was first released, it was plagued with bad battery life. A recent firmware update has improved things but you'll still only get about 16 hours of life on a single charge, which is the worst in our shootout. The Moto 360 uses a simple inductive charging cradle to recharge, no magnets or connectors required. While it's a neat and simple design, it also has its drawbacks. You need a flat surface to set the charger down on, so if you try to recharge the 360 in your bag or on in an airline seat pocket you'll find that it won't stay in place.



AT A GLANCE

OS
Android Wear

Display
1.56-inch LCD

IP Rating
IP67

Dimension
46 x 46 x 11.5mm

Weight
49g

Price
US$249.99



The 360 has a watch crown-style settings button located on the right-hand side.



The 360 uses an inductive charging cradle. Just put the watch on its cradle and it will start charging.

LG G WATCH R

Like the Motorola Moto 360, the G Watch R is a round-faced smartwatch, but with its bezel markings and recessed glass, it looks a lot more like an actual watch, instead of a disc on a strap. The watch's chassis is made from stainless steel in a matte black finish and it comes with a genuine black leather strap. The strap is a bit stiff, and isn't as nice as the leather used on the Moto 360 or ZenWatch, but it can be easily switched out for any standard 22mm watch strap.

It's worth noting that while the bezel around the G Watch R's face looks like a diving bezel and has the relevant 5-minute markings, it doesn't rotate and is merely for show. Like the Moto 360, the watch has a non-rotating watch crown on the side that works as a home button. The overall look of the G Watch R with its chunky, angular build and black finish is definitely the most masculine of our watches, especially when compared with the ASUS ZenWatch, which is much softer and more unisex.

Beautiful fully circular P-OLED display. Good battery life.

Chunky, angular design may not suit everyone.

The screen on the G Watch R is recessed into the body of the watch, as opposed to the Moto 360's display, which actually sits slightly above the surrounding bezel. Android Wear requires a lot of edge to edge swiping, so you might find that the protruding bezel gets in the way, but personally, we quite liked the noticeable stopping point. The display itself is a 1.3-inch P-OLED screen with a 320 x 320 pixel resolution (348 ppi).

The screen is bright and ultra-sharp, with good viewing angles, and it probably has the best color reproduction of all of our smart watches as well. Crucially, unlike the Moto 360, the display is also a perfect circle, although the trade-off is a lack of an ambient light sensor so you'll have to manually adjust display brightness.

The back of the watch is plastic, and houses the heart rate sensor and magnetic charging connector. As with our other watches the G Watch R has an accelerometer for activity tracking. In our testing, we found both the heart rate monitor and pedometer functions to be reasonably accurate and consistent.

Like the ZenWatch, the G Watch R is powered by a Qualcomm Snapdragon 400 processor and runs on Android Wear. LG has also capitalized on the G Watch R's round display with a number of exclusive Android Wear watch faces, many of which mimic the look of high-end luxury watch faces.

The G Watch R was the best performer for our smartwatches when it came to battery life, thanks to its huge 410mAh battery. We were able to get about 24 hours of battery life, even with the screen brightness set to the highest level. You'll still need to charge it every night via the magnetic clip on cradle, but you can probably stretch battery life to two days if you're unable to get to a power socket in time.



AT A GLANCE

OS
Android Wear

Display
1.3-inch P-OLED

IP Rating
IP67

Dimension
46.4 x 53.6 x 11.1 mm

Weight
62g

Price
US$299



Like the Moto 360, the G Watch R has a faux watch crown that acts as a settings button.



The G Watch R uses a magnetic charging cradle that snaps to the back of the watch.

SAMSUNG GEAR S

The Samsung Gear S is the only smartwatch in our shootout not powered by Android Wear. Instead, it uses Tizen, an open source OS that, like Android, is based on Linux. With its huge display, metallic bezels and home button beneath the screen, the Gear S looks a lot more like a tiny curved smartphone strapped to your wrist than a traditional watch. While other smartwatch manufacturers have veered towards more fashionable designs, Samsung seems to be fully embracing the computer on your wrist style, and the Gear S' thick housing, chunky metal clasp and rubber strap is definitely more geek than chic. While its curved form factor makes the Gear S quite comfortable to wear, it's also ridiculously large, probably too big for most women's wrists.

Where the Gear S tries to win you over is with its unique capabilities. It's the only smartwatch in our shootout with its own micro-SIM card slot and 3G modem inside. That means using it without pairing with a smartphone. You can make and receive calls directly, thanks to its built-in speakers and microphone, plus even respond to emails using a tiny onscreen QWERTY keyboard, although honestly trying to type on a 2-inch screen with one finger is just absurd. You're much better off with voice recognition, but Samsung's Tizen-based voice input isn't quite as good as Android Wear. It works, but it often takes a few attempts to get it right. While we enjoyed the novelty of making voice calls with the Gear S, ultimately, you're still better just getting out your smartphone.

Built-in 3G modem lets you use it without pairing with a smartphone. Huge, vibrant display.

Too big. Looks nerdy. Limited app selection.

The Gear S has a curved 2-inch AMOLED display with a 480 x 360 pixel resolution (300 ppi), making it the largest smartwatch display currently available. It is super vibrant and colorful with great viewing angles, but one quirk worth noting is that some of Samsung's older Gear apps aren't optimized for it so they end up looking a bit stretched out and distorted. The Gear S' huge display does have some benefits though. Thanks to its great contrast and large size, it's one of the best smartwatches for reading content and the big curved screen makes vertical scrolling easy too.

With the Gear S running on Tizen, you won't be able to use any Android Wear apps with it; instead, it has its own Gear App marketplace. There is less choice of course, but the few winners to take note of include the Nike+ running app (which is still in development for Android Wear).

Despite having the smallest battery size, battery life on the Gear S was surprisingly decent, especially considering its 3G modem and large display. We were able to get about 20 hours out of it on one charge.



AT A GLANCE

OS
Tizen

Display
2-inch AMOLED

IP Rating
IP67

Dimension
58.1 x 39.9 x 12.5 mm

Weight
67g

Price
RM1,099



The Gear S has a rectangular settings button beneath the screen, just like a smartphone.



The Gear S charging cradle snaps onto the back of the watch.






MODEL	ASUS ZENWATCH	MOTOROLA MOTO 360	LG G WATCH R	SAMSUNG GEAR S
OS	Android Wear	Android Wear	Android Wear	Tizen
DISPLAY	1.63-inch AMOLED	1.56-inch LCD	1.3-inch P-OLED	2-inch AMOLED
RESOLUTION	320 x 320 (278 ppi)	320 x 290 (277 ppi)	320 x 320 (348 ppi)	480 x 360 (300 ppi)
IP RATING	IP55	IP67	IP67	IP67
STRAP TYPE	Standard 22mm leather with clasp deployment	Custom leather strap with pin buckle	Standard 22mm leather with pin buckle	Custom rubber strap with clasp deployment
PROCESSOR	Qualcomm Snapdragon 400	Texas Instruments OMAP 3	Qualcomm Snapdragon 400	Qualcomm Snapdragon 400
SENSORS	19-Axis (Gyroscope, Accelerometer, Compass), Biometric heart rate monitor	Pedometer, Optical heart rate monitor, Ambient Light	9-Axis (Gyroscope, Accelerometer, Compass), Heart rate monitor, Barometer	9-Axis (Gyroscope, Accelerometer, Compass), Heart rate monitor, Ambient Light, UV, Barometer
BATTERY	370mAh	320mAh	410mAh	300mAh
DIMENSIONS	51 x 39.9 x 7.9~9.4 mm	46 x 46 x 11.5mm	46.4 x 53.6 x 11.1 mm	58.1 x 39.9 x 12.5 mm
WEIGHT	75g	49g	62g	67g
PRICE	US$199	US$249.99	US$299	RM1,099

THE BEST SMARTWATCH IS...



LG G WATCH R

Unlike smartphones, which are basically rectangular slabs with screens on them, smartwatches have a lot more room to play with different form factors, styles and even display shapes. With that in mind, the two watches that stood out to us were the Motorola Moto 360 and LG G Watch R. While there's nothing wrong with traditional square-face watches (in fact, we quite like them), they just look too much like tiny computers strapped to your wrist. Between the Moto 360 and G Watch R, while we liked the minimalist style of the Moto 360, but the black bar that cuts off the bottom section of the screen ruins an otherwise elegant design. On the other hand, the G Watch R's chunky, angular black aesthetic looks more aggressive and masculine but it also looks a lot more like a watch, especially with its faux diving bezel. Its excellent battery life, gorgeous crisp display, ability to take any standard 22mm watch strap and snappy processor sealed the deal for us.

QUALITY REASSURED

Sony Walkman NWZ-A17

AT A GLANCE

Audio Type
Hi-Res Audio

Display
2.2-inch QVGA TFT

NFC
Yes

Connection
Wired, Bluetooth and NFC

Price
RM999



64GB not enough for you? No problem, you can slot in a 128GB microSD card.

CONCLUSION

The NWZ-A17 focuses more on selected high-quality audio files, rather than simply being a storage option.

SPECIFICATIONS

Multimedia Audio: MP3 / eAAC+ / WMA / FLAC / HE-AAC / ALAC / AIFF / MPEG-4, Audio Modes: ClearAudio+ / DSEE HX / 5-Band EQ / VPT / Dynamic / Normalizer / DPC, Video: AVCHD / MPEG-4 / WMV9 // **Connectivity** 3.5mm stereo audio jack, micro-USB 2.0, Bluetooth 2.01, NFC // **Memory** 64GB internal storage with expandable microSD slot (up to 128GB) // **Colors** Black, White, Purple // **Dimensions** 44.4 (L) x 109.1 (W) x 9.1 (D) mm // **Weight** 66g w/ battery // **Battery** 960mAh Li-polymer // **Warranty** 1-year // **Contact** Sony Customer Interaction Center // **Telephone** 1 300 88 1233 // **URL** www.sony.com.my

During the 80's, the Sony Walkman was brought into the world, and people just couldn't get enough of the product. It was revolutionary: compact, easy to carry, and it played what was then the latest audio recording medium, the cassette tape. Today, the legacy of the Walkman continues on with Sony through even smaller and more powerful devices, such as the NWZ-A17.

If there's one thing to be said about Sony products, it's that they almost always contain the top-of-the-line features and designs that makes them first choice among other brands. On the subject of design, the NWZ-A17 is one of those Walkman devices that actually shows sensibility in its design, but shows no compromise in its performance. The circuitry of the NWZ-A17 is such that it actually contains a lot of components which, in turn, was first used by Sony in the ES home audio systems, which is what allows this device to support Hi-Res Audio playback. Controls on the device are a bit old-fashioned. To control the volume and options of the Walkman, you use the buttons that are situated both at the front and the sides.

Just to be clear, the new NWZ Walkman series comes in two models: the NWZ-A17 and the NWZ-A15. The former is the model with the larger capacity of the two, being able to hold up to 64GB worth of FLAC audio files internally, while the latter provides 16GB of storage. To some, this may seem like a pitiful amount, but the fact of the matter is that Sony's focus for audio has never been about the storage capacity.

They've always focused more on the principle of providing a device that handles and plays audio files at a better quality, rather than creating another device that merely stores as many songs as they can fit into it. Besides, if storage capacity is an issue, the NWZ-A17 has an external microSD card slot that will support up to 128GB.

As mentioned before, the NWZ-A17 is capable of FLAC support, which is a lossless audio file format. While testing out the Walkman with our own list of songs, we also found it to be very versatile with audio files that weren't FLAC, such as WMA. Additionally, it's also capable of playing videos in MPEG-4, AVCHD and WMV9 format.

Like all previous Walkman devices, the NWZ-A17's battery life is one of the best. On a full charge, we could easily keep the music going for close to 16 hours, and that was with songs that were encoded in FLAC. On standby mode, the device effectively went into hibernation mode, its battery consumption in the mode practically non-existent.

by *John Law*



TESTED & RATED

8.5/10

HWM MALAYSIA

Available at

PLAZA LOW YAT

BEDSIDE COMPANION

Philips AJT3300 Clock Radio

AT A GLANCE

Clock Display
LED

Time Format
24-Hour

Output Power (RMS)
2W

Sound System
Mono

Price
RM179



The AJT3300's controls hint that it is more of a radio dock than a phone dock.

CONCLUSION

This is one of the more affordable iOS-compatible docks we've seen to date that's also a smart option for the budget conscious.

SPECIFICATIONS
Bluetooth version V3.1 + EDR // **Range** 10m (free space) // **No. of alarms** 2 // **Snooze** Yes // **Tuner Band** FM // **Dimensions** 112 x 101 x 125 mm // **Weight** 410g // **Warranty** 1-year // **Contact** Woox Innovations // **Telephone** 1 800 880 180 // **URL** www.philips.com.my



How much do you think you would have to pay for a bedside alarm clock that could double as your phone dock and Bluetooth speaker? What if we tell you that it has two alarms, and is compatible with iOS devices – both the old 30-pin and the new Lightning connector – as well as devices with Micro-USB port? Well, Philips surprised us with their answer, in the form of the AJT3300 Clock Radio.

The AJT3300 is simple in design. Its silver plastic speaker grill dominates the front, which it shares with the LED display. We like the simple look, and we appreciate the clear, yet unobtrusive orange LED display. It's clearly readable in the light, and not at all piercing in the dark.

The top is where all the controls are located: eight buttons and a snooze button. The dock is right here as well. We immediately notice the lack of media playback controls apart from the Play/Pause button that doubles as a call button, and we will explain why shortly.

Don't be fooled by the battery compartment that is cleanly hidden underneath the alarm clock. You will need the provided power adapter to use the AJT3300. The battery compartment that holds two AA batteries is merely backup power for the radio presets and clock, should the power be cut off.

The rest of the connectors are at the back. Here's also where you'll find a convenient spool where you can wind up the access wire, the radio antenna wire, an audio AUX jack, and a USB port.

This USB port and the device's Bluetooth connectivity is the secret to how the AJT3300 is able to connect to so many portable devices. The USB port does nothing more than charge the connected device, while it is Bluetooth that streams the music and controls the radio dock.

The AJT3300 includes adapters for you to connect the three different connectors. However, if you want to connect an iOS device, you will have to provide your own cable. This, we speculate, further reduces the cost of this bedside companion.

Overall, we think that Philips has employed ingenious ways to make the AJT3300 Clock Radio affordable and compatible with all devices. Nevertheless, devices that have their port in odd locations may have to be content with lying next to the clock radio instead of sitting in its dock.

by *Azizul Rahman Ismail*

TESTED & RATED
8.0/10
HWM MALAYSIA

Available at
PLAZA LOW YAT



BULKY PROTECTION

Otterbox Defender for iPhone 6

AT A GLANCE

Protection
Triple layer (slipcover + shell + holster)

Dimensions
150 x 79 x 15mm

Weight
70g, 128g (with holster)

Price
RM189



Customize your protection to go with your mood or even outfit of the day.

CONCLUSION

Excellent protection for those that really need it, but inner hard shell could have been slimmer to reduce bulk.

SPECIFICATIONS
Compatibility Apple iPhone 6 // **Features** Built-in touchscreen protector, port plugs, protective membrane // **Warranty** 1-year // **Contact** KWS Distribution Sdn Bhd // **Telephone** 1 700 81 6992 // **URL** www.otterbox.com

Smartphones are getting slimmer with each generation and if the iPhone 6's bend-gate saga has taught us anything, it's that investing in a proper case isn't just a fashion statement, but a must-have requirement. If you lead a rough and tumble lifestyle, the Otterbox Defender is probably the first thing that pops into mind.

This triple-layer case comes in a two-piece inner shell comprising of a plastic hard case at the back and a snap-on plastic front that holds both together. This doubles as a screen protector, which saves you the trouble of getting one separately. However, be warned that the built-in screen protector does reduce screen sensitivity somewhat, requiring more pressure to register taps. As the film covers the Home button, Touch ID sensitivity is affected too. Also, the screen has neither anti-glare nor privacy options; you can choose to install your own, but that'll just reduce sensitivity even more.

Application of the inner shell can be a hassle as the clips are very tight and not easy to separate; I actually chipped my nails trying to pry it loose. I would have preferred if Otterbox designed it with a sliding lock mechanism, but thankfully, it's a one off inconvenience (unless you change cases often).

Once the inner shell is secured, the final layer of protection comes in the form of a silicone outer slipcover. This significantly adds to the iPhone 6's presence and actually made an Apple representative think I was using an iPhone 6 Plus instead. Still, this is the price you pay for ultimate protection. Besides providing added grip and friction that prevents your phone from slipping off tables, it also offers excellent shock absorption if your phone does fall. I've (accidentally) dropped my phone during the course of this review—once even hitting a metal railing—to nary a dent or scratch.

Because of its silicone cover and front screen, you can wipe off accidental splashes, but the case itself isn't designed to offer water-resistance. It is also sealed from dust, but the slipcover itself has a tendency to collect dirt around the edges and can get stained. My Deep Water Blue case looked pretty seasoned after two weeks of use; something to take note off if you plan on getting a lighter color combination.

by *Tarin Teo*

TESTED & RATED
7.5/10
HWM MALAYSIA

SENSIBLE SOUND, DURABLE BODY

Armaggeddon Panzer V Lowe



Armaggeddon is a brand that many gamers around the world have closely associated with gaming peripherals, such as their mice, keyboards and headphones. But when it comes to their speakers, the company doesn't quite have as much ground as other mainstream brands, save except within the gaming circle. So then, does the Panzer V Lowe meet our expectations of a speaker system?

For those of you who've own a pair of Armaggeddon speakers, you'll know that these things are built solid and made to look as though they are completely indestructible. That design language seems to have carried over to the Panzer V Lowe. From the speakers to its subwoofer, this speaker system is built around a honeycomb structure. Mixed it with some rigid rows of plastic, the design also helps give the speaker some added durability. Simply put, this speaker system looks and sounds solid.

Another thing about Armaggeddon speakers are their connectivity options. We'll tell you outright that the Panzer V Lowe doesn't have anything garish on it. Two speakers, one subwoofer, an external volume controller, Bluetooth and a 3.5mm audio jack. That's all. Even the speakers still use the traditional method of clipping the expose end of the wires into the corresponding jacks at the back of the subwoofer. On top of the volume controls, you'll also find that the treble and bass control has been built into the subwoofer.

With the design and looks of the speakers out of the way, we now reach the section where we discuss the sound quality of the Panzer V Lowe. When it comes to gaming-centric speakers, our conception of this speaker sub-genre always leans more to the idea that the bass for it is going to be heavier than your average speaker system. In that respect, the Panzer V Lowe clearly doesn't disappoint.

During our testing, we played our usual list of hand-picked songs in order to test the speaker's pitch quality. For the highs, we played 'Diggin' My Potato' by Yoko Kanno and the Seatbelts to test for breaking in the speaker, to which we can gladly tell you that there wasn't any. The mid registers sounded impressive and showed no signs of breaking when we played songs from Joni Mitchell and Joanna Wang, but we found that precision and placement weren't too impressive.

Needless to say, the bass performance of the Panzer V Lowe is good. It showed no sign of distortions, even while under constant pressure from bass-heavy songs like Prodigy's Voodoo Child or Nina Simone's signature deep vocals and the accompanying tubas and trombones.

by *John Law*

TESTED & RATED

8.5/10

HWM MALAYSIA

Available at

PLAZA LOW YAT

AT A GLANCE

Type
2.1

Connection
AUX-in (3.5mm), USB (charging only)

Total Power Output (RMS)
20W (speakers), 55W (subwoofer)

Remote Control
No

Price
RM299



The Panzer V Lowe doesn't have anything fancy to it. Just old school connectivity and a USB port for charging.

CONCLUSION

The Panzer V Lowe is a mesh of durability and tradition, with strong bass thrown into the mix.

SPECIFICATIONS
Woofer 1x 6.5-inch (magnetically-shielded) // **Satellite Drivers** 2x 3-inch + 2x 1.5-inch tweeters // **Frequency Response** 170Hz – 20KHz (satellites), 56Hz – 156Hz (subwoofer) // **Power Supply** 230-250V ~ 50Hz // **Warranty** 1-year // **Contact** Leapfrog Distribution Sdn Bhd (Malaysia) // **Telephone** (03) 7803 6703 // **URL** leapfroglobal.com/amg

SECURITY IN A BOX

Sharp Cloud SmartHome System

AT A GLANCE

HD IP Camera Resolution
1.3MP

Wi-Fi Standard
IEEE 802.11 b/g/n

RF Standard
433MHz signal

Encryption
WPA2-PSK

Price
RM2,499



The HD IP camera also has a built-in microSD card slot to store videos.

CONCLUSION

A good starter security system with great potential and room for expansion.

SPECIFICATIONS
Components OverCloud processing unit, 2x HD IP camera, 2x door/window sensor, 16GB USB flash drive, remote control // **Door/Window Sensor Battery** CR123A 3V // **Remote Control Battery** CR2032 3V // **RF Range** 40 meters // **PIR Detection Range** 10 meters // **Network Interface** Ethernet 10/100Base-T (RJ45) // **Warranty** 1-year // **Contact** Sharp-Roxy Sales & Service Company (M) Sdn Bhd // **Telephone** 1 800 88 8678 // **URL** www.sharp.com.my

The Sharp Cloud SmartHome System is the first-of-its-kind security system in a box. Simple and easy to install, it pairs with your portable smart device to give you the peace of mind of knowing that your house is under a watchful eye. But, can something that comes in a box really protect your home?

For this review, we were provided with the seven-piece Starter Kit that includes an OverCloud Processing Unit (OPU), two HD IP cameras, two door/window sensors, a 16GB USB flash drive, and an arming and disarming remote control.

Although it is a complete starter kit, we feel like it is only enough for an apartment or a small home with one door sensor at the front and back entrance, a camera pointing at the main entrance, with the other in the main hall.

The entire Cloud SmartHome System is wireless and heavily dependent on your smart mobile device. From adding components to managing and monitoring, everything is done via mobile. We applaud how Sharp makes it all simple from installation to initialization, but we have our concerns.

First of all, the system, despite its name, does not come with cloud storage. Videos and photos are stored in either the USB flash drive that is plugged into the OPU, your smart mobile device, or the microSD card in the camera.

Secondly, the whole system depends heavily on the OPU, creating a critical single point of failure and a prime target for thieves who are familiar with the system. Nevertheless, having a home security system like this is better than having none at all.

The Starter Kit also does not come with an alarm, which is sold separately in the Alarm Kit. Instead, if the alarm triggers, the system will alert the user or other users with authorized access in case of an undesirable event. This is fine if there is someone to respond to the alarm, or if the system could notify the authorities. As it is, you will have to depend on video recordings and photos taken by the system.

That said, we feel the strength of the Cloud SmartHome System is in its modular system. It can be expanded and shaped to fit any application. Sharp could easily release more components that add more features to the system later down the road.

During the launch of the Cloud SmartHome System, Sharp hinted that the system could be used for purposes beyond security, an example being the ability to control other Sharp smart appliances in the future.

by *Azizul Rahman Ismail*



TESTED & RATED
8.0/10
HWM MALAYSIA

Available at
PLAZA LOW YAT



LITTLE NIFTY SPEAKER

Edifier MP19

Portable speakers are a dime a dozen these days, coming from just about any audio brands you can think of. Edifier, a recognizable name in quality audio, has made its mark over the years with a wide range of speakers and headphones. As part of the Image series, the MP19 follows Edifier's recent string of portable speakers, including the MP250 Plus and iF355BT. But it's also quite a departure from the MP18 – both in terms of form factor and technical design.

Instead of a thin, oblong piece of hardware, the MP19 goes for a curved, rectangular-shaped chassis that's adorned with brushed metal and a zero-gap construction, resulting in a solid build quality. Take a closer look under the grille and you'll see that it boasts a pair of 1.75-inch aluminum cone drivers with passive bass radiator. On the top panel, you'll find numbered buttons and playback controls on both sides of the LED display, which evokes the look of a classic, large-font alarm display. Underneath the well-hidden power button is a little hole to attach a loop lanyard, but we would not recommend doing that since the speaker is rather on the heavier side to be carried that way.

Connectivity-wise, the MP19 does not offer wireless capability of any kind, which means no Wi-Fi and Bluetooth. Instead, you get an AUX-in, headphones jack, microSD slot, and a Micro-USB port that doubles as a charging port for the internal 2,200mAh Li-ion battery. The lack of wireless connectivity is a rather odd omission for a portable speaker that's designed for home and outdoor listening, but it was likely done to keep the price down. As expected, the MP19 offers FM radio support, with the ability to store up to 70 of your favorite channels simply by pressing and holding the specific number key.

In terms of audio performance, the dual drivers do a great job of handling distortion, while delivering a commendable level of audio reproduction. We also tested the speaker with our usual selection of audio tracks, and we're glad to report that we can clearly discern the details, although the mids and highs are nowhere near the clarity of a dedicated home speaker system. Another thing that's worth mentioning is its bass performance, which we found to lack a certain 'punch' when it comes to upbeat numbers. Overall, the MP19 handled most music genres adequately well.

by *Ammar Uzair Aminuddin*

TESTED & RATED

8.0/10

HWM MALAYSIA

Available at

PLAZA LOW YAT

AT A GLANCE

Type
Portable Speaker

Connectivity
AUX-in / 3.5mm audio / Micro-USB / FM radio

Battery
2,200mAh Li-ion

Remote
No

Price
RM129



Despite its lack of Bluetooth, the MP19 offers a wealth of connectivity options.

CONCLUSION

With a multitude of connectivity options, the MP19 is With the connectivity options it offers, the MP19 is a portable audio companion to consider.

SPECIFICATIONS
Total RMS 4W (DRC On) // **Frequency Response** 200Hz~20kHz (±5dB) // **Signal-to-Noise Ratio** ≥85dBA // **Warranty** 1-year // **Contact** Inter-Asia Technology Sdn Bhd // **Telephone** (03) 7880 4001/4002 // **URL** www.inter-asia.com.my



VINN-ING SOUND

Vinnfier Xenon 7 BTR

AT A GLANCE

Type
2.1

Total RMS
54W

Remote Control
Yes

Power Supply
230V 50Hz

Price
RM189



The Xenon 7 BTR comes fitted with a USB and SD card slot for direct music playback.

CONCLUSION

A 2.1 system with a robust set of connectivity options and an interesting price point.

SPECIFICATIONS
Drivers Subwoofer: 5.25-inch, Speaker: 3-inch // **Connectivity** Bluetooth/USB/SD/FM radio // **Frequency Response** Subwoofer: 40Hz - 150Hz, Speaker: 150Hz - 20KHz // **Warranty** 1-year // **Contact** Vinnpower Distribution Sdn Bhd // **Telephone** (03) 7772 9218 // **URL** www.vinnfier.com.my

TESTED & RATED
8.5/10
HWM MALAYSIA

Available at
PLAZA LOW YAT

When it comes to choosing a good pair of speakers for a desktop or notebook PC, most people tend to be more concern about the brand and price rather than its sound quality and features. With the Xenon 7 BTR, consumers will get all the aforementioned elements in one package, as it offers its own set of features, as well as the kind of sound quality most consumers want.

Aesthetically, the Xenon 7 BTR is the kind of 2.1-channel speaker system that can be fitted in a modern home setting, as the chassis is mostly covered with a matte black color scheme and on the front side. It also has a glossy finishing. The subwoofer unit is not too bulky, which makes it ideal for placement underneath the table. Apart from that, its design is almost identical to the woofer, and it has no additional media playback buttons.

On the woofer's front, users will find the LCD display, as well as the control panel that provides enough options for you to activate the unit. From switching modes to music controls, the Xenon 7 BTR is pretty comprehensive. For those who are too lazy to move and manually adjust the volumes and such, there's also a remote control for your convenience. With the Xenon 7 BTR, users will also be able to adjust the sound based on their listening preference using the volume, treble and bass control knobs located on the left side of the main unit.

In terms of its features, the Xenon 7 BTR offers a robust set of connectivity options, including a 3.5mm auxiliary jack to connect to your PC or portable devices. It also has an USB and SD card slot to recharge your device while you listen to your music. For added convenience, you can also connect any of your smart devices wirelessly to enjoy your music via Bluetooth. On top of that, this speaker system also comes with a built-in FM modulator, enabling users to listen to the radio if they should choose to.

With a total power output of 54W, you will have nothing to worry about its performance. After burning in this speaker system, we found that the overall sound quality was immersive, and that the highs managed to reach an impressive pitch, thanks to the built-in OCL amplifier. The bass performance was rather impressive, resulting in punchy, thumping lows that really bring out the bass-heavy tracks.

by *Ammar Uzair Aminuddin*



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EYE ON SECURITY

Aztech WIPC409HD

AT A GLANCE

Video Resolution
1,280 x 720, 640 x 360, 320 x 180

Wireless Standard
802.11 b/g/n

Ethernet
10Base-T / 100Base-TX

Sensor
CMOS

Price
RM369



The IP camera has audio ports to connect microphones and speakers.

CONCLUSION

A capable and versatile addition to a home security system that could use a little refinement.

SPECIFICATIONS

Pan Coverage 355° // **Tilt Coverage** 120° // **Lens** 3.6mm // **IR distance** 10m // **Dimensions** 112 x 90 x 116 mm // **Weight** 275g // **Warranty** 2-years // **Contact** AZ-Technology Sdn Bhd // **Telephone** (03) 7804 8450 // **URL** www.aztech.com

Wireless IP cameras have been appearing in droves in recent years, with each vying to provide you with security and peace of mind. Aztech's entry, the WIPC409HD, delivers all that in a versatile package that is also easy to set up.

The packaging of the WIPC409HD touts "3-minutes easy set-up" and we can attest to that. To get it up and running, we simply plug it into power, press the WPS button on both the Wi-Fi router and the camera, and install the mobile app.

Pairing the mobile app to the camera is as simple as scanning a QR code and entering the password, but the app itself is functionally quite simplistic as well. With the app, you can access the camera remotely and take snapshots, but you can't take videos.

The WIPC409HD is motorized. It can pan up to 355° and tilt up to 120° to cover a wide area. There are also controls to pan and tilt the camera on the app, but we found these controls a little bit sluggish, and the turning increment too small and slow to be used for tracking.

Despite claiming to be HD, the WIPC409HD's video resolution only goes as high as 720p. While not technically misleading, the resolution is detailed enough to identify details, such as facial features or logos at a reasonable distance.

The ring of infrared LEDs surrounding the camera lens gives away the camera's night vision capabilities. It works very well despite being in monochrome. The camera intelligently switches between light and night vision mode automatically, depending on ambient light.

At the back of the WIPC409HD, there are four ports, a power port, an audio in, audio out, and a network port. The camera has a built-in microphone and speaker that lets users listen in or talk to anyone within an earshot of the camera. With the audio ports, however, the camera can be connected to a better output and microphone system.

There's also a microSD slot at the back of the camera. It can be used as an option to store photos and videos, but it can only be accessed through the PC interface, which is far more versatile.

by *Azizul Rahman Ismail*



TESTED & RATED

8.0/10

HWM MALAYSIA

Available at PLAZA LOW YAT



TWO IS ALWAYS BETTER THAN ONE

AORUS X7 Pro

AT A GLANCE

Processor
IntelCore i7-4870HQ @ 2.5 GHz (Turbo Boost up to 3.7 GHz) with a 6MB L3 cache

Display
1,920 x 1,080p Full HD, anti-glare

Graphics
SLI (2x) NVIDIA GeForce GTX 970M (6GB DDR5)

Memory
16GB DDR3L

Price
RM9,999



The five shortcut keys located on the left side of the keyboard lets you do a variety of things quickly.

CONCLUSION

The X7 Pro continues AORUS' streak for dishing out monster frame rates while staying super slim.

SPECIFICATIONS

Operating System Windows 8.1 // **Storage** 512GB SSD, 1TB 7200rpm HDD // **Connectivity** Killer LAN, 802.11ac, Bluetooth 4.0 // **Audio** 2x 2W speaker, 2x woofer speaker // **I/O Ports** 3x USB (3.0), 2x USB (2.0), HDMI, Mini-DisplayPort, surround port, D-Sub, RJ45, SD card reader, microphone-in, earphone-out (SPDIF) // **Miscellaneous** HD camera // **Battery Type** Li-polymer, 73.26Wh // **Dimensions** 428 (W) x 305 (D) x 22.9 (H) mm // **Weight** 3kg // **Contact** Ingens Sdn Bhd // **Telephone** (03) 7688 9888 // **URL** www.aorus.com

The third iteration of the AORUS X7 carries pretty much the same chassis design as its predecessors (the X7 and X7 V2); all three models arriving in quick succession within the same year and it shows how manufacturers are chasing specs to maintain up their claims as the top gaming notebook around.

The X7 Pro is one of the few notebooks refreshed with the higher end Intel core processors, in this case the i7-4870HQ. This is Intel's second fastest chip after the i7-4980HQ (which is found in the MSI GT72 2QE). It's also unique in that it's running two GeForce 970Ms in SLI mode, which means there's a boatload of power under the hood. Couple that with a 512GB SSD storage and 1TB in conventional HDD and you not only have speed, but capacity as well.

As the design is pretty much the same as before, so we'll not focus too much on it. The aluminum chassis looks good and feels very durable, but smudges way too easily. Still, it continues to be one of the more impressive designs around considering the hardware AORUS packs into the slim body.

The keyboard uses chiclet-style keys with a row of customizable macro keys to the left. Only the macro keys use special scissor switches for faster response though. If you're a hardcore gamer, you probably won't like the keyboard anyway as its slim design means very shallow keys that do not provide satisfactory feedback, unlike the ones on the ASUS G751.

Similarly, the track pad isn't much to shout about either. While it looks nice and shiny, the entire thing is flushed into the chassis and it becomes annoying over time how we have to constantly look down just to make sure our fingers are still on the pad. Of course, AORUS is probably counting on gamers to use external keyboards and mice when it comes to gaming, so they went with form over function here.

So, it all comes down to performance. The AORUS X7 Pro is a very impressive gaming laptop, no doubt about it. The SLI'ed 970Ms inside make it a force to be reckoned with. The X7 Propretty much blew away all the other notebooks in nearly every benchmark we tried. It even broke the 100 FPS barrier for Middle-Earth: Shadow of Mordor on High, a feat even the monstrous MSI GT72 2QE Dominator Pro couldn't achieve.

by *Salehuddin Husin*

TESTED & RATED

9.0/10

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THE MIDRANGE CONTENDER

Gigabyte GeForce GTX 960 WINDFORCE 2X OC Edition

AT A GLANCE

Slot
PCIe 3.0

Model
GV-N960WF2OC-2GD

Memory
2GB GDDR5

SLI
Supported

Price
TBA



Like the GTX 970 and 980, this card is also FLEX display-ready.

CONCLUSION

Gigabyte's done a wonderful job with this GTX 960 variant, thanks to WINDFORCE 2X technology.

SPECIFICATIONS
GPU Clock 1,216MHz (Base), 1,279MHz (Boost) // **Memory Clock** 7,010 MHz (Effective) // **Connectors** 1x Dual-Link DVI-I, 1x DVI-D, 1x HDMI, 3x DisplayPort (FLEX Display capable) // **Minimum PSU Required** 400W // **Dimensions** 257 x 114 x 43 mm // **Contact** Nation-Tech Sdn Bhd / SDS Distribution Sdn Bhd // **Telephone** (03) 4280 6636 / (03) 7788 8700 // **URL** www.gigabyte.my

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8.5/10

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It's the beginning of the New Year, and as tradition would have it, NVIDIA and partners have released several variations of the new midrange graphics card, the GeForce GTX 960. To this extent, Gigabyte introduced three variants of the new card: the G1 Gaming, the MINI Gaming and the WINDFORCE 2X OC Edition. In this review, we take a look at the latter, and see just how this card performs.

As an overview, NVIDIA's GeForce GTX 960 is the replacement to the previous generation midrange graphics card, the GTX 760. It's based on the company's new graphics architecture, Maxwell. Needless to say, Maxwell shows some remarkable improvements over the previous generation, such as faster clock speeds, lower temperature and better TDP management.

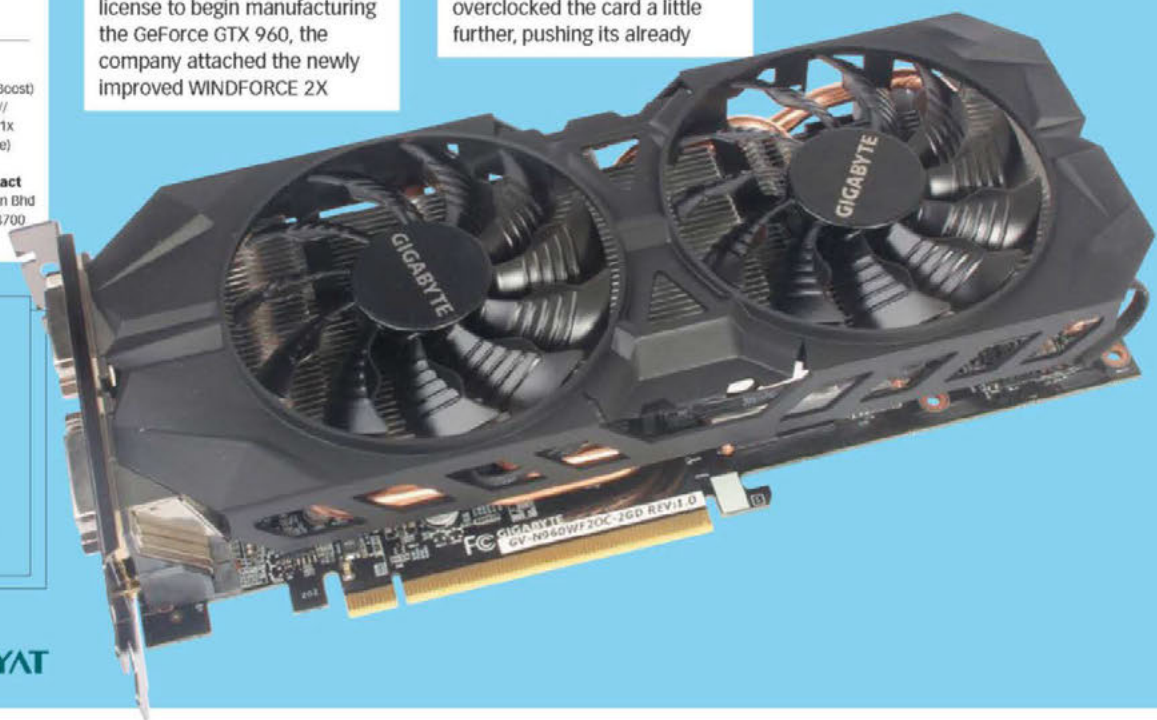
When partners like Gigabyte were given the commercial license to begin manufacturing the GeForce GTX 960, the company attached the newly improved WINDFORCE 2X technology and coolers onto it, as they did with the higher-end GTX 970 and 980 before. Unlike the G1 Gaming Edition, however (you can check out our review on HardwareZone.com.my), this WINDFORCE 2X OC Edition has only got two fans attached to it.

That being said though, the WINDFORCE 2X OC Edition still has similar features like the G1 Gaming. One of these features is the newly implemented Zero RPM fan technology. It's actually a technology that has been around for a while, but Gigabyte's just another one in a long line of companies that has finally adopted this technology. In Gigabyte's case, the Zero RPM fan technology ensures that the fans on the card will only spin once the temperature goes above 62-degree Celsius, and will stop spinning once the temperature drops below 43-degree Celsius.

Before we ran our tests, we overclocked the card a little further, pushing its already boosted clock speed from 1,279MHz up to 1,349MHz. On the 3DMark synthetic benchmark, the card scored 6,743 on Fire Strike, 3,383 on Fire Strike Extreme, and 954 on Fire Strike Ultra. The latter score is a clear indication that this card was not designed to handle 4K content easily.

For real-world benchmarks, we put the card through its motion with Far Cry 3, Hitman: Absolution, the Witcher 2 and Batman: Arkham Origins. For Far Cry 3 and Hitman: Absolution, the card was able to churn out an average 35 FPS with all settings at maximum, while Arkham Origins saw an average 62 FPS. The Witcher 2 saw the card struggling to maintain an average 24 FPS, but that's a given, considering just how demanding the game actually is.

by *John Law*





DARK HORSE

Plextor M6e Black Edition PCIe SSD (256GB)

Last year, we had the opportunity of reviewing what we can safely describe as Plextor's fastest SSD, the M6e PCIe SSD. The results from our test left us staggered and incredibly impressed with its speeds. This issue, we have yet another opportunity to preach to you about the company's follow-up to it, the M6e Black Edition PCIe SSD.

As before, the only drawback to actually using a PCIe SSD is that it takes up one PCIe slot from your motherboard, which means that an SLI or CrossFire graphics card configuration with three or four cards may not be possible. But that is a trade-off between speed and graphics power, and we believe in striking a balance between the both of them. So, if you're not fussy about fitting one of those slots with a lightning-fast SSD instead of a graphics card, believe us then when we say that you will not be disappointed.

Plextor has made some serious cosmetic touch-ups to the M6e Black Edition since the advent of the original M6e. First, to ensure that the SSD doesn't overheat or burn out, they've attached a large, black and red heatsink over the memory modules, which is what actually lends to the hardware's namesake. Even its PCB design looks absolutely stunning in its own way, with very few visible markings on its back. Plextor has also fitted the M6e Black Edition with an additional SATA power connector, in the event that motherboard's PCIe slot is unable to supply enough power to it.

Now that we've talked about the external features at great length, we'll touch on what makes this SSD so special: extreme computational speeds. We put the M6e Black Edition through our CrystalDiskMark benchmark with its workload set at both one and nine cycles at 4,000MB/s. On both accounts, sequential read and write speeds averaged between 760MB/s and 580MB/s respectively, which is about the same as the original M6e.

Perhaps the most impressive display of speed from the M6e Black Edition was during our transfer test for the 1GB and 4GB files. The transfer time for the 1GB file from our test PC to the M6e Black Edition took a mere 4.5 seconds, while the transfer for the 4GB file took only 5.6 seconds. Compared to the original M6e, that's more than twice as fast for the 1GB test, and more than five times as fast for the 4GB file test. Simply put, this SSD is now the new king of lightning-fast SSDs in our books.

by *John Law*

AT A GLANCE

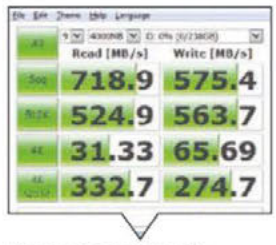
Capacity
128GB / 256GB (Tested) / 512GB

Form Factor
M.2 SATA

Interface
PCIe

Transistor Size
19nm

Price
RM919



The speeds are, yet again, phenomenal.

CONCLUSION

Meet the new king of lightning-fast SSDs, the M6e Black Edition.

SPECIFICATIONS

Sequential Read 770MB/s // **Sequential Write** 580MB/s // **DRAM Cache** 256MB DDR3 (128GB) / 512MB DDR3 (256GB) / 1,024MB DDR3 (512GB) // **Vibration (Operating / Non operating)** None // **Warranty** 3-years // **Contact** Build Technology Supply Sdn Bhd // **Telephone** (03) 7955 3699 // **URL** www.plextor.com

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SPACE AND SPEED

Kingston microSDXC Class 10 UHS-I Card (128GB)

Today, a vast majority of our portable devices use SD or microSD cards for expandable storage. These cards come in two shapes, but a great deal of them are different from one another if you really pay close attention to them, as certain devices support some of them, but not the others. This month, we take a look at the Kingston microSDXC Class 10 UHS-1 card.

To differentiate this from the rest, we'll break its name down and see what each individual bit means. First is Kingston; anyone who ever uses expandable storage knows the name of this brand. Second is microSDXC, which means this is a microSD card that is larger than 64GB, and this particular review unit is the 128GB variant. Class 10 refers to its theoretical ability to manage data transfer speeds of at least 10MB/s even under heavy load, and UHS-1 means the same thing, only using a different data bus.

Putting all that together would mean that this card is good for taking long, continuous videos in HD, as well as taking still images in high resolution or in large formats like RAW. In other words, a great match for any smartphone. The SD adapter that comes with it also makes it suitable for many cameras, allowing them to make use of its high speed and large capacity to take high resolution photos in rapid succession, or record long Full HD clips.

Of course, the figures mentioned above are theoretical figures. To see if the card can perform in actual usage as the numbers would suggest, we ran CrystalDiskMark on the card. From the benchmark results, the card's sequential read speeds were rated at 19.18 MB/s with sequential write speeds of 16.88 MB/s. As for actual file transfer speeds, we timed the amount of time taken for two folders, one containing 1GB worth of files and another with 4GB, to be copied into the card. The 1GB pile took two minutes and 52 seconds, while the 4GB pile took nine minutes and 18 seconds.

A 128GB microSDXC card with a Class 10 UHS-I speed rating may be overkill or a boon, depending on what device you use it with and how you intend to use said device. On a camera, it is definitely nice to have large storage capacity, especially if you are using one with a high pixel density and you enjoy taking multiple shots in rapid succession, and in large formats like RAW. This will also be good if you intend to do a lot of Full HD video recording. On smartphones, if you do all of the above, then you'll be making good use of the capacity, though it would take many, many more photos to fill up the card entirely.

by *Ian Chee*

AT A GLANCE

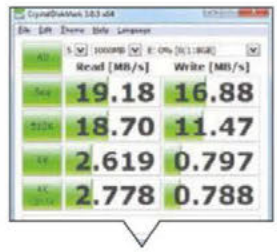
Capacity
128GB

Adapter included
Yes

Speed
Class 10 UHS-I

Voltage
3.3V

Price
RM399



The promise of a minimum speed is kept, at least in benchmarks.

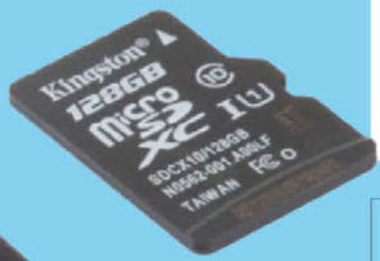
CONCLUSION

For heavy users who like to record every single moment of their lives, be it with a camera or mobile phone.

SPECIFICATIONS

Operating temperature -25°C to 85°C // **Storage temperature** -40°C to 85°C // **Dimensions (Adapter)** 11 x 15 x 1 mm (24 x 32 x 2.1 mm) // **Warranty** Lifetime // **Contact** Amble Action Sdn Bhd / Convergent Distribution (M) Sdn Bhd / Ingram Micro Malaysia Sdn Bhd // **Telephone** (03) 7968 6899 / (03) 2144 1881 / (03) 7952 8188 // **URL** www.kingston.com





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ON-THE-GO HOTSPOT

TP-Link M7350



AT A GLANCE

Connectivity
LTE-FDD, DC-HSPA+, HSPA, UMTS, EDGE, GPRS and GSM

SIM Compatibility
Standard

WLAN
802.11a/b/g/n

Antenna
Internal

Price
RM399



Unlike other 4G portable hotspots, the M7350 offers an expandable microSD slot for seamless wireless sharing.

CONCLUSION

If you're constantly on the road with multiple devices at your disposal, then the TP-Link M7350 is the 4G Wi-Fi hotspot for you.

SPECIFICATIONS
Power Supply Internal 2,550mAh rechargeable battery // **Data Rates** DL: 150Mbps, UL: 50Mbps // **Frequency** 2.4GHz / 5GHz // **Transmit Power** <20dBm // **Warranty** 2-years // **Contact** Lab Seven (M) Sdn Bhd / AdvanceNet Technology Sdn Bhd // **Tel** (03) 8075 8811 / (03) 8070 3633 // **URL** www.tp-link.com.my

Whether you're on the road, or you left the cable at home, getting access to high-speed Internet on the go doesn't mean you have to search high and low for free Wi-Fi hotspots. While there are plenty of excellent mobile routers that get the job done, 4G models are fewer and far between, especially one that is compact enough to keep fit in the pocket. TP-Link's latest – the M7350 – rather fits the bill. It's a mobile Wi-Fi hotspot with 4G LTE support, allowing users to connect up to 15devices simultaneously.

Design-wise, the M7350 comes in a 16mm thin chassis, made rectangular with rounded edges. The exterior has a two-toned black finish, one glossy and the other with matte finishing. Underneath the power button, you'll find the Micro-USB charging port. The menu button, on the other hand, can be found on the opposite side. The glossy middle houses a 1.4-inch monochrome display that provides essential information, such as signal strength, amount of data used, battery live, name of network provider, and connected devices.

With the M7350, users can toggle between their preferred networks, as well as control a host of Wi-Fi settings, such as maximum number of connections, band selection, and network mode. Inside that chassis is where the 2,550mAh battery is housed, which lasts up to 10 hours, along with a microSD and standard SIM card slot.

Setting up the M7350 was quick and easy. Users simply have turn it on, wait for the device to connect to the selected network provider, and connect to it via Wi-Fi from a PC or mobile device. Once connected, it will then prompt for the password, which is listed under the Wi-Fi Name/Password option on the M7350's display.

As for performance, we tested the M7350 in the lab using a 4G SIM card and a mix of smartphone, tablet and notebook PCs to better simulate the real-world experience. The Wi-Fi hotspot took care of web browsing and audio-video streaming from Spotify and YouTube on up to four concurrent devices, before some buffering lag were detected on one of the devices. The download and upload speeds were up to 2.3MB/s at its peak, but that's entirely dependent on the telco's coverage and quality of service. We also noticed a drop in performance when a connected device is moved further than a 25m distance.

Overall, the M7350 is one of the better dual-band mobile routers out there, offering fast Internet connectivity where available, alongside an informative display and remarkable battery life, which makes it an ideal wireless solution on the go.

by *Ammar Uzair Aminuddin*

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PIKOM FAIR 2014 (III)

Here's what went down at the third and final KL PIKOM Fair of 2014 and the inaugural Game Masters MOL Dota 2 Championship

BY JOHN LAW AND IAN CHEE

2014's IT and electronics scene ended with a bit of a bang at the KL PIKOM Fair 2014 (III), which was held at the Kuala Lumpur Convention Centre (KLCC). As always, the halls were filled with the presence of big name brands, local resellers and distributors looking to give away some good deals to the eager crowd. However, this PIKOM Fair was a little different, as both venue and event played host to the Game Masters 2014 MOL Dota 2 Championship.



We had a booth again!

As always for us at HWM, the PIKOM Fair is a chance for us to get out on the event floor and meet with potential subscribers and fans. We also held a crowd-pleasing bout in the form of the Ultimate Texting Challenge, where challengers were given the task of typing a string of words as fast as they possibly can, before the HP Officejet Pro X476dw multifunction printer could finish completing its print job.



MSI's booth was all about the G Series gaming notebooks.

During the fair, we took a walk around the hall to see the companies that were present. Many of the major names in the PC, notebook and smart device market were out on the floor in full force. One of these companies was MSI, but like the previous PIKOM Fair, the company wasn't there to promote their graphics cards or motherboards. Instead, their focus was more set on promoting the G Series gaming notebooks that came with many variations of NVIDIA's GeForce GTX 800M and 900M graphics.

One company that we didn't expect to see, let alone have two booths within the hall, was Microsoft. The creators of the Windows operating system focused each booth to specific consumer segments. One booth was strictly dedicated to the end-user devices, such as notebook PCs and its very own Surface Pro 3, while the other booth was dedicated to promoting the newly acquired Windows Phone 8.1 devices.


Here's APES.my at the PIKOM Fair 2014 (III).



Microsoft had an impressive presence at the fair.

Another booth that had a fairly sizable presence during the fair was Lenovo. The company did have a lot of products and devices to promote that weekend, such as the ultra-slim and ultra-flexible YOGA 3 Pro, as well as the new projector-equipped YOGA 2 Pro Tablet. Additionally, they were also promoting the new VIBE X2 smartphone, which was launched at the end of last year.

Gaming peripheral maker Razer was also there at the fair. The company's presence during the event was actually something many of the visitors looked forward to, because there aren't many distributors and resellers that officially bring in Razer hardware. The booth was filled with many of the company's new 2014 Razer Blade and Razer Blade Pro, as well as the gaming mice and Kraken headsets.

It wasn't just distributors and manufacturers that dominated the scene. One reseller, Ideal Tech PC (whom we found out later that they work closely with APES.my), was on the floor and they had some really



MSI GT72 2QE Dominator Pro.



Lenovo had a fairly large presence.


As usual, Razer stood out at the fair.

interesting hardware on display. The company specializes in custom-built and custom-cooled gaming rigs. We also found out that they're about the only reseller in Malaysia that brings in the famed InWin skeletal chassis. InWin PC chassis' are highly sought after by PC gaming and building enthusiasts.

Speaking of APES.my, the PC building specialists were also present at the fair, and were positioned next to the Game Masters competition, which was happening for the duration of the fair as well. Once again, the group had their specially constructed desktop PC, courtesy of Vector, as well as a 4K monitor to display the power of their custom-built gaming rig.

Perhaps the highlight of the entire show was the NVIDIA booth at the PIKOM Fair 2014 (III). The graphics company's presence was well-received, and they were there to promote gaming notebooks that were powered by GeForce GTX 800M and 900M GPUs. These gaming notebooks include the likes of Acer's Aspire V15 Nitro



Gigabyte P35X v3.



Ideal Tech had some really cool casing up on display.

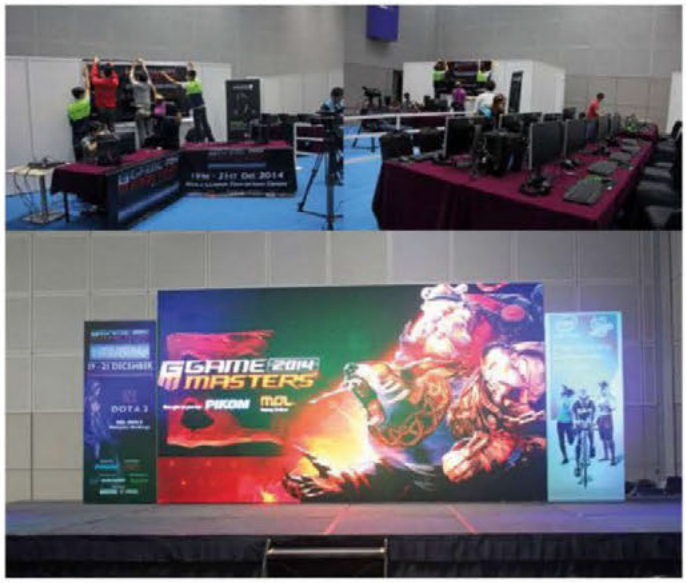


AORUS X7 Pro.

Black Edition, HP's surprising and wickedly slim Omen notebook, and the almighty, dual SLI powerhouse AORUS X7 Pro.



Acer Aspire V15 Nitro Black Edition.





The games pit 18 teams, 16 of which came from all over Malaysia, for the title of Champion, which makes the winning team RM10,000 richer.



As the first day of the games went on, it was apparent that there were some issues that were not thoroughly ironed out. The power grid powering the games and the projected screen on-stage tripped a couple of times. While fortunately no games were interrupted as a result, it did delay the games, which were already slightly behind schedule.



And where would the fairgoers be watching the games from? Why, from the big screen on the stage, of course!

As we've mentioned before, the PIKOM Fair this time around is quite different from the ones before, with the Game Masters 2014 MOL Dota 2 Championship happening concurrently. This gave the fairgoers a little something extra at the end of their trek through the four crowded halls, with the gaming grounds and the stage located at the very end of the fair, close to the exit. Also in the vicinity was the stage on which the large screen that projects the game to the audience is placed. This very stage was also where the prizes were given out at the end of the event.

We got in early on the first day and got to see the organizers of the championship setting up shop. The machines on which the players were set to wage war on has likely been set up on the day before, but the casters' desks were still being set up when we got there, with the organizers putting up banners on and around them.



One of the two Indonesian teams, O2F. They may not be in their home country, but they are right at home in a Dota 2 match.



Providing commentary for each game were the casters, who made sure everyone, including non-Dota 2 people, know what is going on.



Beyond that point, none of the games were projected on the main screen until the third day, when the finals were underway. But that didn't stop the audience from crowding around the gaming grounds to see some of the action going down live.





Of course, there wasn't enough space for everyone to be there, so the rest of the spectator crowd decided to hang back with the hopes that the games return to the screen.

The third day of the game got off to a slow start, with the unprojected quarterfinals and semifinal games. When the finals were on, however, the crowd started to gather again, likely waiting for the awards ceremony as well.











At the end of the three grueling days of intense battling, Team Gigabyte.Mineski took the title of Grand Champion, as well as the prize of RM10,000. Teams G Guard, O2F and Genysis came in as the first, second and third runners-up, respectively, and the teams took home RM5,000, RM3,000 and RM2,000, respectively.



Anothai Wettayakorn (middle), Managing Director of Dell Thailand and General Manager for Indochina; (2nd from left) Harjeet Singh Rekhi, General Manager of Dell's End-User Computing business in South Asia; and (2nd from right) James Johnston, Dell Asia-Pacific Japan Executive Director and General Manager, Client Solutions.

DELL'S 2015 BLITZ

Renowned Computer Technology Company Hit the Ground Running with Exciting 2015 Product Lineup

BY AZIZUL RAHMAN ISMAIL



The UltraSharp QHD+ infinity touch display version of the XPS 13 has an almost edge-to-edge glass display.





The Dell XPS 13 is one elegant-looking Ultrabook.

Dell recently held a launch event in Bangkok where tech media from all over Southeast Asia congregate to experience first-hand Dell's latest product portfolio, ranging from the highly desirable XPS 13 to the world's first 27-inch UltraSharp 5K monitor.

We cut through the glamor and glitter and went straight to the XPS 13, notably the UltraSharp QHD+ (3,200 x 1,800) infinity touch display variant, to get our first impression and we were suitably impressed. Describing its dimension, which incidentally are 304 x 200 x 15 mm, does not do it justice. The XPS 13 is a 13-inch Ultrabook in an 11-inch form factor, which is roughly the size of a sheet of A4 paper.

Cold to the touch, the exterior of the XPS 13 is clean of harsh lines, with ports lying flush to the body of the Ultrabook, which is mainly made of machined aluminum. Weighing a mere 1.26kg, it is incredibly light while still retaining a quality look and feel.

We noted that below the XPS 13 are two generous bars of rubber that function as feet that not only prevent the lightweight Ultrabook from slipping away while you're typing, but also keep its vents a notch above the surface it is placed on.

Flipping up the display lid, we see why this 13-inch Ultrabook can fit into an 11-inch chassis - a thin bezel that measures approximately 5.2mm. This means Dell had to relocate the webcam, which is now located at the lower left side of the display.

We like the carbon fiber-baked backlit keyboard of the XPS 13 as well. It's small, there is no getting around it, but it is comfortable to use and feels well built. We especially like the carbon fiber material, which is smooth like satin and not too sticky. The ample-sized trackpad further distance the XPS 13 from feeling like a netbook. We have to admit, however, that at 13-inch, differentiating between the HD and the QHD+ displays is almost indiscernible without close scrutiny.



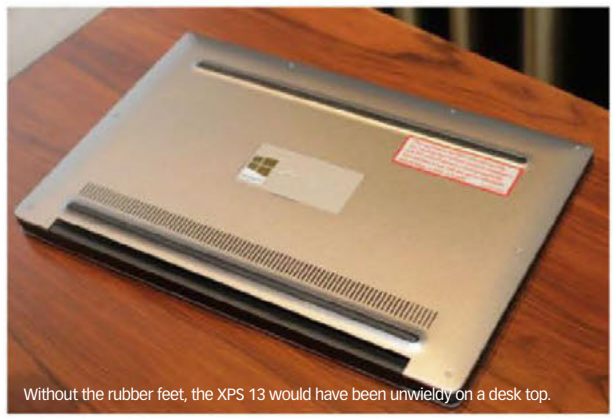
The keyboard is comfortable and the carbon fiber material gives it a unique feel.



On the left of the XPS 13 are its power, mini-HDMI, USB, and audio port alongside a battery indicator.



On the right side is an SD card reader, USB port, and a security lock.

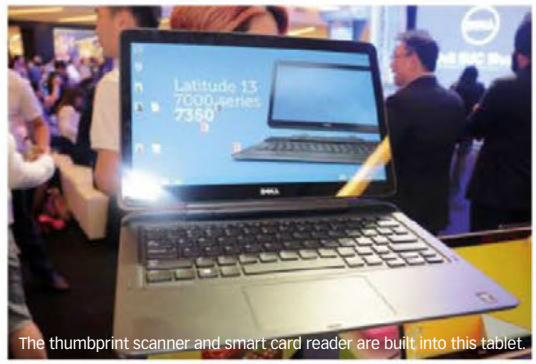


Without the rubber feet, the XPS 13 would have been unwieldy on a desk top.



Although it is in a weird location, we found that it is still effective

Also at the event was the Latitude 13 7000 Series 2-in-1 Ultrabook, an enterprise-class Intel Core M and Intel Core vPro-powered convertible tablet. What differentiates this unit from the rest is its security features, which include built-in smart card reader and thumbprint scanner.



The thumbprint scanner and smart card reader are built into this tablet.

Unlike most convertible tablets, the Latitude 13 7000 Series has a premium feel and is subjected to MIL-STD 810G testing to ensure durability under extreme conditions. A spill-proof keyboard and a premium Corning Gorilla Glass screen makes it a cut above the rest.

The Latitude 13 7000 Series is also touted as having a long battery life. According to Dell, it has a 30 Whr Li-polymer battery with ExpressCharge in Tablet and an optional 20 Whr Li-polymer battery with ExpressCharge in Keyboard base. We'd love to put it to the test, but until we get one in the lab, we will reserve our judgment.



It is an Ultrabook first, and a tablet second.

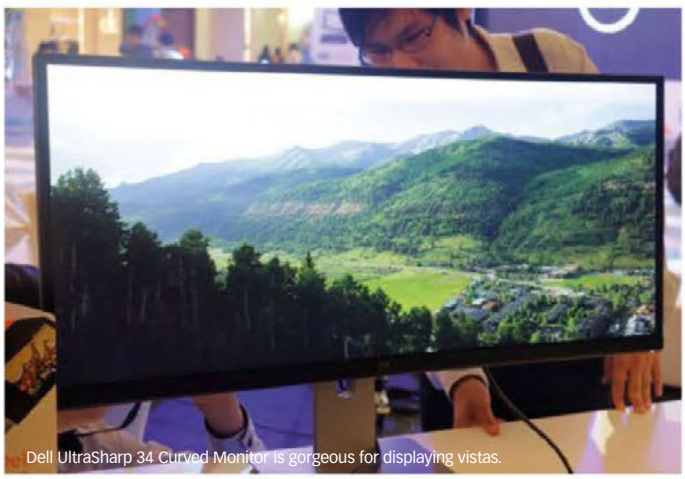


Dell Venue 11 Pro 7000 Series Tablet.

For those who are looking for a Windows 8.1 tablet for everyday use, Dell showcased the bigger cousin to the Venue 8 7000, the Dell Venue 11 Pro 7000 Series Tablet. Designed flexible, the tablet can be converted into a desktop using a dock, or a notebook using a full-sized mobile keyboard.

Despite its size, the Venue 11 Pro 7000 Series sports a 10.8-inch Full HD (1080p) display and an Intel Core M processor. This tablet was a coin toss for us as we feel that some time in the lab is needed to appreciate what's different between this and other Windows 8.1 tablets in the market.

Meanwhile, the Dell UltraSharp 34 Curved Monitor, which is the industry's first 34-inch 21:9 curved monitor, and the UltraSharp 27 Ultra HD 5K Monitor also made an appearance at the event. Both were launched and made available since the fourth quarter of last year. Although brilliant, we found that the source for the monitors were not optimal to showcase each display's full capability at the event.


Dell UltraSharp 34 Curved Monitor is gorgeous for displaying vistas.

Noticeably absent at the event were the 4K-capable 2015 Dell XPS 15, which we hope to see very soon.

Below are the pricing and availability of the announced products:
Dell XPS 13 Ultrabook starts at RM3,599 and is available today. Dell Latitude 13 7000 Series 2-in-1 starts at RM4,379 and is available today. Dell Venue 11 Pro 7000 Series starts at RM2,505 and is available today. Dell UltraSharp 27 Ultra HD 5K Monitor - UP2715K starts at RM6,399 and is available today. Dell UltraSharp 34 Curved Monitor - U3415W starts at RM3,499 and is available today.

This event report can also be found on ***hardwarezone.com.my at bit.ly/1GFYuen***

BETTER CHIPS, SMARTER CARS

NVIDIA announces new Tegra X1 processor.

MORE INSIDE>

CONNECTED FITNESS
HTC and Under Armour set to collaborate.

FAVORING WEARABLES
Intel enters the wearable tech race.

DRESSED TO THE NINES
We reviewed the Google Nexus 9.

CREATIVE PHOTOGRAPHER'S DREAM
Our verdict on the Oppo N3.



102 HOT SHOTS

NEW YEAR, NEW VENUE

Dell Announced Several New Devices at CES 2015, Including the Venue 8 7000 Series Tablet



During CES 2015, Dell's keynote was rated as one of the most interesting of the crowd. The company announced its newly refreshed and redesigned XPS 13 Ultrabook, but the second device to steal the limelight was the brand new Android tablet, the Venue 8 7000 Series.

The tablet set heads turning for a lot of reasons, with its thinness being one of the chief attractions. At 6mm thin, the Venue 8 7000 is currently the world's thinnest tablet ever made. Apart from that, the tablet has an 8.4-inch OLED display with a resolution of 2,560 x 1,600 pixels. Underneath its hood, the Venue 8 7000 is powered by Intel's Atom Z3500 quad-core processor, but the highlight of the new tablet is the new Intel RealSense 3D camera technology and placement of the camera sensor on the bottom left of the tablet. With Intel RealSense Snapshot Depth Camera, the tablet is able to capture depth information to form a depth map for every photo taken, enabling actual measurements of objects and refocusing images via Dell's Gallery application.

This new technology actually opens up many more creative ways that users can interact with their tablet and photos. The tablet is slated for release within the year, but no word on a specific date or local availability had been given at the time of the announcement. The Dell Venue 8 7000 will be priced at US$399 (approx. RM1,423), so local pricing would be speculated somewhere between RM1,600 and RM1,800.

GET FLEXIBLE

LG Showcased Upcoming G Flex 2 Curved Smartphone at CES 2015

Picking up on the popularity of its highly successful LG G3 smartphone last year, LG impressed the crowd at CES 2015 this year with the successor of the new and improved G Flex 2 curved smartphone.

The LG G Flex 2 itself is a refreshed version of the company's original G Flex curved smartphone. Inside the G Flex 2, the phone will be powered by Qualcomm's new top-of-the-line Snapdragon 810 processor, as well as feature 4G LTE-A connectivity with tri-band carrier aggregation. It will also be one of the few devices that ships with Google's new Android 5.0 Lollipop OS. Also, compared to the G Flex, the phone also has a slightly smaller display at 5.5-inches. Unlike its predecessor, though, the G Flex 2 sports a Full HD display, which LG says they have made 20 percent stronger and 30 percent more durable, thus reducing the chance of screen damage.

One of the features that LG has brought back with the G Flex 2 is its extremely flexible, self-repairing polycarbonate back cover. To refresh your memory, the cover of the original G Flex was capable of healing itself from scratches that are made either from the small particles and the keys in your pocket, or even ones made intentionally with sharper objects, such as a knife or blade.

No exact release date has been set for the G Flex 2, but LG has said that they intend to release it sometime within the first half of this year.



The new LG G Flex 2 is more powerful than its predecessor.

BYTES

Lumia Denim Now Available for All Windows Phone 8.1 Devices

Microsoft's Lumia Denim update is officially available for all Windows Phone 8.1 devices. Initially available to only a select few Lumia smartphones when initially announced, the company has now rolled out the update to all Lumia smartphones and devices that run on the mobile operating system. The update introduces many new features, such as the integration of Cortana into the phone's entire system. Users will now be able to access Cortana on their phone at anytime, simply by saying "Hey Cortana." The update also includes a new Live Folder function, as well as an improved Glance screen.

Google Glass: Dead in the Water?

Google has finally pulled the plug on the Glass Explorer initiative. Announced back in 2012 during one of the annual Google I/O sessions, the smart glass was the first time they had ever created a device that brought the concept of augmented reality one step closer to life. The team behind Glass has now been made into a separate division within Google and under Tony Fadell, the current Chief Executive of Nest, the home automation business that Google acquired the year before. Google still intends to release the Glass in the future, but one that is more affordable to the general public.

Samsung Claims Tizen is Faster Than Other OS

Samsung has proclaimed that Tizen will be lighter and faster than other mobile operating systems that are currently on the market, and that include Android, iOS, Windows Phone 8.1 and even BlackBerry 10. According to a statement from Samsung: "The benefits of Tizen are very simple. Tizen is lighter than other operating systems. In other words, Tizen requires less processing power and memory, thereby ensuring faster speeds while consuming less energy. As a result, consumers will benefit from a smoother user experience through the likes of shorter boot time, faster web browsing and seamless multitasking, all the while enjoying longer battery life."



When it comes to speed, not all USB 3.0 flash drives are equal. SanDisk® High Speed USB 3.0 Flash Drives transfer files super-fast, giving you more time to do the things you enjoy.

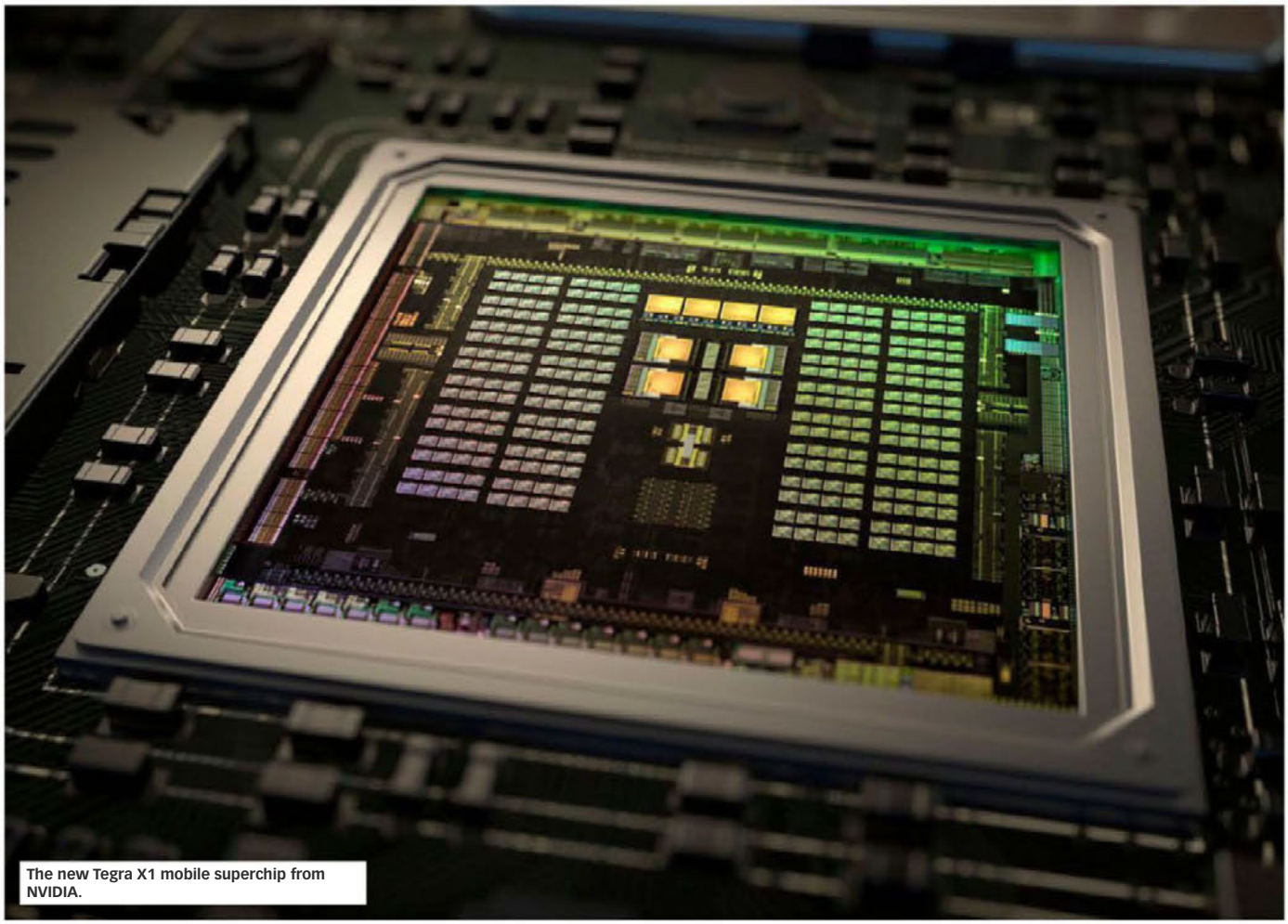
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- ✓ Transfer a full-length movie in seconds[2]
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* See product packaging and www.sandisk.com for additional detail.
1 Up to 240MB/s write speed to drive; write up to 60 times faster than standard USB 2.0 drives (4MB/s); up to 260MB/s read speed. USB 3.0 port required. Based on internal testing; performance may be lower depending upon host device. 1MB=1,000,000 bytes.
2 Based on a 1.2GB MPEG-4 video transfer to drive from host device with USB 3.0 port. Video support and results may vary based on host device, file attributes and other factors. Standard USB 2.0 drives (4MB/s).
3 Based on transfer of 1000 photos (3.6GB) to drive from host device with USB 3.0 port. Average size photo is approx. 3.8MB. Performance may vary based on host device.

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The new Tegra X1 mobile superchip from NVIDIA.

NVIDIA'S NEXT STEP

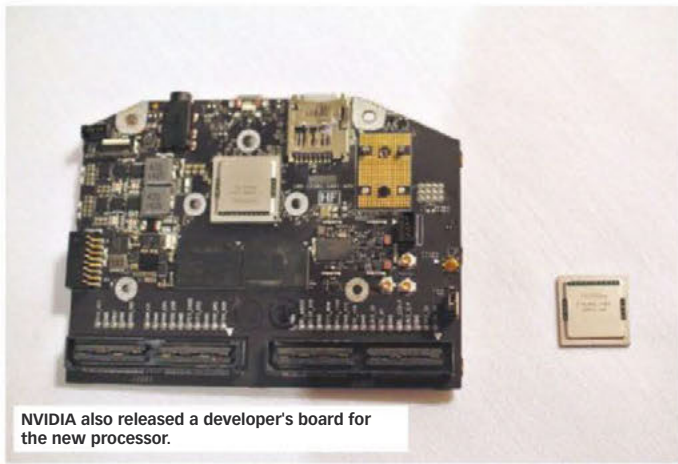
NVIDIA Introduces the Tegra X1 to the World at CES 2015

One of the most important things to come out of CES 2015 was the keynote from NVIDIA. The graphics company took the next step in mobile supercomputing when they announced the successor to the Tegra K1 mobile SoC, the Tegra X1.

Back when the Tegra K1 was announced last year, NVIDIA embarked on a radical new direction for its mobile chip when they told the world that it shared the same graphics architecture of their then-current desktop computing counterpart, the Kepler GPU. Using the Kepler GPU as a basis, NVIDIA was able to radically redesign the way a mobile processor was built with 192 CUDA cores inside.

The new Tegra X1 follows in that same tradition, with NVIDIA basing it off the new and more current Maxwell graphics architecture, which was first introduced with the new desktop GeForce GTX 900 series graphics cards, as well as the notebook graphics counterpart, the GeForce GTX 900M series.

Whereas the Tegra K1 boasted as many as 192 Kepler CUDA cores, the new Tegra X1 is packed with a whooping 256 Maxwell CUDA cores. Additionally, it's also fitted with a 64-bit ready 8-core ARM CPU, which is built off the new 20nm manufacturing process, and NVIDIA says that it is able to support 10-bit color 4K video at an average 60 FPS. Benchmarks ran on the new Tegra X1 also showed just how powerful the new chip was at running games and handling graphically-demanding apps. On 3DMark, the scores reportedly surpassed the 40,000 point barrier, while on GFXBench, the superchip was handling an average 78 FPS.



NVIDIA also released a developer's board for the new processor.

NVIDIA CEO Jen-Hsun Huang mentioned during the keynote that the Tegra X1, like its predecessor, would also be used in advancing the dynamics of a smart automobile. To this point, he also announced the NVIDIA Drive CX and the Drive PX, both of which will be explained in detail in Ignition. That being said, Jen-Hsun also said that the Tegra X1 could still be applied in smartphones, tablets and even Chromebooks, should OEM makers choose to do so.

CONNECTED FITNESS

HTC and Under Armour collaborate in the name of fitness

Smartphone manufacturer HTC and fitness apparel company Under Armour entered a strategic partnership to collaboratively design a series of products that will work seamlessly with UA Record network, the latest addition to Under Armour's Connected Fitness network.

"Mobile innovation has completely changed people's lives in recent years, making us more connected to our world than ever before," Peter Chou, CEO of HTC said. "By joining forces with Under Armour, one of today's most exciting and ambitious leaders in empowering athletes, we are taking the first step on this journey and will provide consumers with a range of connected health and fitness products and services that no other brand can match" added Chou.

Both HTC's design and engineering teams, as well as Under Armour's designers, sports scientists and athletes are working closely to ensure than their shared effort will meet the highest expectations of athletes everywhere.

"HTC is renowned for it fearless commitment to innovation, coupled with an attention to detail and premium design that makes it the ideal partner for Under Armour and UA Record," Robin Thurston, SVP, Connected Fitness, Under Armour said. "By applying these shard values to our collaboration, we will allow athletes everywhere to take their performance to the next level in a more connected and intuitive way than ever before."



The Armour39 may be one of the first products that will be supported on HTC devices.

FAVORING WEARABLES

Intel Finally Entered the Wearable Tech Race with the New Curie Module at CES 2015



January was the month of CES 2015, which means that there was a lot of new hardware, technology, devices and concepts. Anyone who is anyone in the tech circle was out at the expo. Intel was definitely one of the exhibitors that day, and one of the many devices they had on display was the new Curie module.

Intel Curie is the semiconductor giant's new highly integrated hardware module, which is designed to power a solution no bigger than a button with all the usual wireless features, such as a Bluetooth Low Energy radio and even motion sensors. Such a combination of integrated components in a tiny module may have been unheard of or even impossible several years ago, which makes the Curie module the first of its kind in the world.

"The rise of new personal computing experiences, intelligent and connected devices, and the wearable revolution are redefining the relationship between consumers and technology," said Intel CEO Brian Krzanich at the company's CES 2015 keynote. "Our goal with Intel technology is to help solve real problems and enable experiences that are truly desired by people and businesses."

The Intel Curie module also comes with a low-power, 32-bit Intel Quark microcontroller, 384kB flash memory, 80kB SRAM, low-power, integrated DSP sensor hub with proprietary pattern-matching accelerator, and a 6-axis combo sensor with accelerometer and gyroscope.

Intel says that they expect to ship the new module by the second half of this year.



Brian Krzanich, Intel CEO, holding up the new Curie module.

DRESSED TO THE NINES

Google Nexus 9

Back in 2012, HTC entered the tablet market with the creation of the Flyer. It was a bold attempt on the company's part, considering that at the time, the only competition that they had in the market was from Apple and Samsung. Sad to say, the Flyer never did quite catch on with the world, and HTC soon pulled out from the Android tablet segment. Fast forward to today, and HTC has finally returned with a new tablet, the Google Nexus 9.

To be honest, this review was actually a bittersweet moment for many of us here at HWM Malaysia. For a start, Google's choice of getting HTC to make the tablet is actually a first for the two companies. It's a first for Google, because the companies that were previously responsible for making the Nexus devices were ASUS, LG and Samsung. For HTC though, the Nexus 9 gave the company a chance to re-enter a market segment of which they have long been absent from.

Like the One (M8), HTC built the entirety of the Nexus with its zero-gap construction technique, which means that the tablet doesn't just feel solid, but it looks the part as well. We're also thankful that HTC didn't go with a full metal build like the One (M8), and instead used a matte plastic back for easier grip of the tablet. The Nexus 9 is also the first Nexus device to be powered by NVIDIA's new 64-bit Tegra K1 SoC.

The Nexus 9 was also a chance for us to test out Google's Android 5.0 Lollipop OS. Throughout our use, we found it to be smooth and responsive. The new animated sequences really do their job in bringing the user experience a new breath of fresh air, while also making it fun to use.

The downside of the Nexus 9, like all Nexus devices have, is the distinct lack of an expandable storage option. It's alarming to us because, when you considered that the Nexus 9 only comes in two internal storage options – 16GB and 32GB – these capacities don't quite measure up to mobile devices that are already offering internal storage options as big as 128GB.

Due to the presence of the Tegra K1 SoC, performance really wasn't an issue. On our synthetic benchmarks of 3DMark, PCMark, AnTuTu and Quadrant, the Nexus scored 24,444, 5751, 57,538, and 14,121 for each category, respectively. For the graphics test, we ran Epic Citadel and found that the tablet could hold a steady frame rate of 58FPS.

The other bittersweet moment is its availability. It's powerful, solid and beautiful, but until Google decides otherwise, the Nexus 9 is never coming to Malaysia. In short, if you find this tablet in the country, chances are, it's going to be a gray import.

by *John Law*



TESTED & RATED

8.5/10

HWM MALAYSIA

Available at

PLAZA LOW YAT

AT A GLANCE

Network
Wi-Fi / 4G LTE

Camera
8MP (Rear) / 1.6MP (Front)

Display
8.9-inch QXGA (2,048 x 1,536)

OS
Android 5.0 Lollipop

Price
TBA



A size comparison between the Apple iPad mini 2, Sony Xperia Z3 Tablet Compact and the Google Nexus 9.

CONCLUSION

Google Nexus 9 is powerful, thanks to its NVIDIA Tegra K1 SoC. It's just a pity it's (officially) unavailable in Malaysia.

SPECIFICATIONS

Processor 2.3GHz NVIDIA Tegra K1 64-bit 'Logan' SoC // **GPU** Tegra K1 // **Multimedia** Audio: MP3/eAAC+/WMA/WAV/FLAC Video: DivX/XviD/MP4/H.263/H.264/WMV // **Connectivity** 3.5mm stereo audio jack, micro-USB 2.0, Wi-Fi IEEE 802.11 a/b/g/n, Bluetooth 4.0, NFC // **Memory** 2GB RAM, 16GB/32GB internal storage (no expandable storage) // **Colors** Indigo Black, Lunar White, Sand // **SIM Card Type** Nano-SIM // **Dimensions** 228.2 (L) x 153.7 (W) x 8 (H) mm // **Weight** 425g (Wi-Fi) / 436g (4G LTE) // **Battery** 6,700mAh Li-Polymer // **URL** www.google.com/nexus

TAP FOR GALLERY

CREATIVE PHOTOGRAPHER'S DREAM

Oppo N3

The Oppo N1 placed the company on the map. Its innovative swiveling camera and large display were features that some would say are ahead of its time. Nevertheless, its successor, the Oppo N3, has a lot to live up to and a few hurdles to face to become one of the greats.

Although large screen sizes on a portable device is the norm today, the N1 pushed the envelope a little too enthusiastically at 5.9-inches back when it was released in 2013. The N3 addresses this with a more manageable 5.5-inch Full HD TFT screen. It is certainly prettier then its predecessor, now with a higher pixel density and better contrast.

Oppo was the first in the world to release a 13MP camera smartphone with the N1. The camera swivels vertically, giving users the ability to not only take photos at creative angles, but also take advantage of the high-resolution camera for taking selfies.

The N3 improved on this by using a 16MP sensor, a motorized swivel, and backing it up with Oppo's own Pure Image 2.0+. The result is a camera that can take gorgeous photos, fantastic panoramas, and unrivaled selfies. It even takes RAW format photos, offers full manual controls, and capable of double exposure. It is one of the best cameras we've seen on a smartphone to date.

We love the new motorized swivel as it makes panoramic shots and tracking shots fun.

However, we also found some of the camera functions to be a little finicky and wouldn't function at certain orientations. We also found the area around the motor heats up noticeably after a series of panoramic shots.

Another feature that we love is Skyline Notification, an arching gap under the phone that is both aesthetically unique and functional. It is visible no matter which way the phone is oriented, which to us is a great implementation.

Despite its many features and few shortcomings, we feel that the biggest hurdle in using the Oppo N3 is Color 2.0. Don't get us wrong, it is as usable as any customized Android overlay, but this derivative of Google's mobile OS does not play well with certain apps, most notably Facebook Messenger.

In our benchmark, the N3 impressed us by scoring 17,508 in 3DMark's IceStorm Unlimited and 40,968 in Antutu. Performance is not a problem for the latest smartphone from Oppo.

by *Azizul Rahman Ismail*



TESTED & RATED

8.5/10

HWM MALAYSIA

Available at

PLAZA LOW YAT

AT A GLANCE

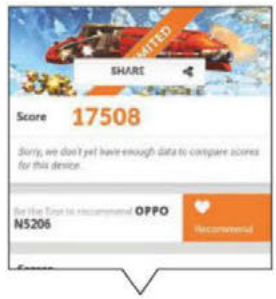
Operating System
Color OS 2.0 (based on Android 4.4)

Display
5.5-inch Full HD TFT multi-touch capacitive screen with Gorilla Glass 3

Storage
32GB (expandable to 128GB via microSD card)

Camera
16MP OmniVision OV16825

Price
TBA (pre-order price: RM2,098)



The Oppo N3 achieved a five-digit score on 3DMark's most demanding benchmark test.

CONCLUSION

A fun and innovative phone for the mobile photographer at heart.

SPECIFICATIONS

Color White // **Processor** 2.3GHz Qualcomm Snapdragon 801 Quad-Core (MSM8974AA) // **GPU** Adreno 330 // **RAM** 2GB // **Dimensions** 161.2 x 77 x 8.7 mm // **Weight** 192g // **Warranty** 1-year // **Contact** Oppo Electronics Sdn Bhd // **Telephone** (03) 7954 1969 // **URL** www.oppomobile.com.my



AN AFFORDABLE PADFONE

ASUS PadFone S

AT A GLANCE

Operating system
Android 4.4.2 KitKat

Display
5-inch
1,920 x 1,080 pixels
(441ppi) Super IPS+

Processor
Qualcomm Snapdragon 801 2.3GHz

Storage
16GB internal storage with microSD support up to 64GB

Price
RM899



The PadFone S can be docked into an optional docking station to turn it into a full 9-inch tablet.

CONCLUSION

A very affordable 2-in-1 hybrid smartphone, but with compromises in design and build.

SPECIFICATIONS

Processor 2.3GHz quad-core Qualcomm Snapdragon 801 // **GPU** Adreno 330 // **Multimedia** Audio: mp3, wav, eAAC+ / Video: mp4, h.264 // **Connectivity** 3.5mm stereo audio, micro USB2.0, Wi-Fi IEEE 802.11 a/b/g/n, Bluetooth 4.0, NFC // **Memory** 2GB RAM // **Dimensions** 143.4 (H) x 72.5 (W) x 10 (D) mm // **Weight** 150g w/battery // **Battery** 2,300 mAh Li-Ion (non-removable) // **Warranty** 1-year // **Contact** ASUS Hotline // **Telephone** (03) 7724 3495 // **URL** my.asus.com

The ASUS PadFone series has been around for two years now, and continues to be the only 2-in-1 phone-tablet hybrid around. The basic form factor has remained unchanged since the original PadFone was released in April 2012, where the smartphone can be docked into a tablet shell, turning it into a full tablet device.

At 10mm, the PadFone S is significantly thicker than other flagship models. In fact, it's actually thicker than the first generation PadFone, which was 9.2mm. Despite its bulk, the phone isn't too heavy, coming in at 150g, which is slightly over average but nothing too alarming. Like the PadFone Infinity, the PadFone S sports an aluminum frame with chamfered edges. However, the rear gets a downgrade design-wise as it's now a removable polycarbonate plastic. It feels quite cheap, and it's certainly not up to the quality of previous PadFones that sport aluminum backing. Despite the rear cover being removable, the battery is sealed and can't be removed. This time round, the optional tablet docking station comes in a 9-inch form factor, for an additional RM499.

The phone is equipped with a 5-inch Super IPS+ LCD screen, with a 1,920 x 1,080 pixel resolution. This gives it a pixel density of 441ppi, which yields very crisp and sharp images. You also get a 13-megapixel rear camera, which performs fairly well under normal lighting conditions.

The PadFone S runs on the fairly powerful Qualcomm Snapdragon 801 2.3GHz processor, with 2GB of RAM. Benchmark performance was generally quite good, and compared favorably to other, more expensive, flagship smartphones. Battery life, however, was slightly under average, lasting only 7 hours on our video looping benchmark.

Overall, the new PadFone S is an interesting proposition. On the one hand, at just RM899, it's very affordable. The Infinity's RM899 launch price was a lot to ask for, especially for such an eccentric design, but RM899 might just be low enough for anyone intrigued with its hybrid proposition. On the other hand, the PadFone S is probably the worst PadFone advancement ASUS has ever made, with the low price resulting in cutbacks in both design and build materials.

Having said that, there's still lots to like about the PadFone S. Even if you ignore its docking tablet capabilities, you're getting a lot of value for its price with flagship-level performance and camera quality.

by *PY Ho*

TESTED & RATED

8.0/10

HWM MALAYSIA

Scan & View

mydlink connected home

D-Link®

Home is where the smart is™

Use the free mydlink Home app to instantly turn devices on/off from your smartphone or tablet locally or remotely

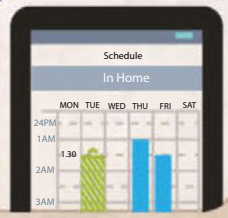
Easy Setup

Easily Connect to existing WiFi with WPS (WiFi Protected Setup button)



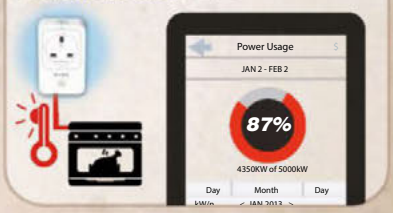
Power Scheduling

Easily create on/off schedules for your devices.



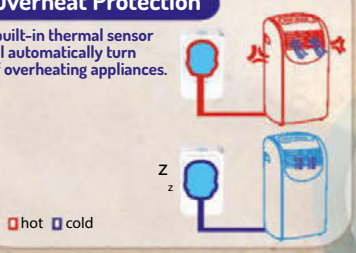
Energy Usage Statistics

Monitor power consuption of connected devices.



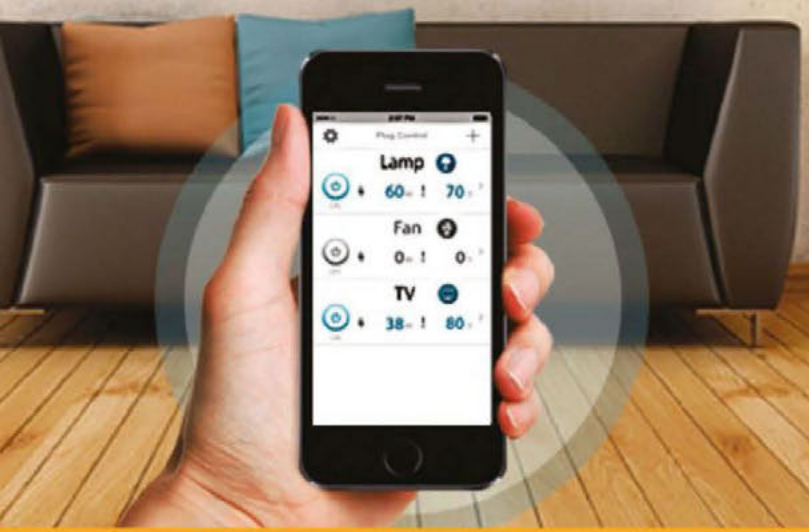
Overheat Protection

A built-in thermal sensor will automatically turn off overheating appliances.



DSP-W215
WiFi Smart Plug







Really Easy Setup

Connect to existing WI-Fi network via a simple push of the Wi-Fi Protected Setup (WPS) button on the Smart Plug and on the router. It's hassle-free and gets you connected in minutes.

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COLORFULLY AFFORDABLE

Microsoft Lumia 535 Dual SIM

Since its purchase of the Lumia brand, Microsoft has been struggling to capture the emerging markets with affordable smartphones. The company's most recent attempt to woo the entry-level segment is packed with more attractive features, but could they be trying too hard with this one?

A follow-up to the Lumia 520 and 530, the Lumia 535 is a 3.5G smartphone with Dual-SIM capabilities, a bigger 5-inch display, and two 5-megapixel cameras, which led Microsoft to refer to the phone as a '5x5x5' device.

The display on the Lumia 535 is capable of 960 x 540-pixel resolution, a step up from the Lumia 530, but you'll need a firmware update to get the touchscreen to function properly. Perhaps the practice of releasing the product now and patching it later from gaming consoles are slowly creeping into smartphones. Let's hope that's not the case.

The Lumia 535 runs on Windows Phone 8.1 with the latest Denim update, which means that it includes camera apps, such as Lumia Cinemagraph, Lumia Selfie, and more. However, the Lumia Refocus app is missing on this model.

The OS includes Microsoft's new voice assistant, Cortana. Like Siri, ask questions and you'll be given results in the app, or shown a list of web results, if Cortana doesn't have the answer. It mostly works fine, although it defaults to a web search a little too often.

At its core is a 1.2GHz quad-core Qualcomm Snapdragon 200 SoC that is paired with 1GB of RAM, and 8GB of internal storage, expandable via microSD. The unit, in turn, is powered by a 1,905mAh Li-ion battery.

This combination is sufficient to run most everyday tasks, but sometimes simply navigating around the interface can be a little sluggish. We also saw some hiccups here and there, which is a minor annoyance, but does not break the phone.

Microsoft rates the battery at 13 hours of talk time. With the low-powered processor and display, the Lumia 535 breezed through almost a whole work day before we needed to look for the nearest wall outlet.

One of the biggest drawbacks of the Lumia 535 is the Windows Phone Store. The app selection still feels limited and lacks a few fundamentals the other platforms are enjoying, but that's not a real dealbreaker for the phone's target audience, in our opinion.

by *Azizul Rahman Ismail*

TESTED & RATED

8.0/10

HWM MALAYSIA

Available at

PLAZA LOW YAT

AT A GLANCE

Network
3G

Camera
5MP front and rear

Display
5-inch 960 x 540 resolution

OS
Windows Phone 8.1 with Lumia Denim

Price
RM429



The Lumia 535's 5MP camera is competent for a phone of its price range, and it's a good selfie camera to boot.

CONCLUSION

Despite its minor flaws, this affordable smartphone packs good value for your ringgit.

SPECIFICATIONS

Processor Qualcomm Snapdragon 200 1.2GHz quad-core // **SIM Card Type** Dual Micro-SIM // **Memory** 1GB // **Storage** 8GB (expandable to 128GB via MicroSD) // **Free Cloud Storage** 15GB // **Dimensions** 140.2 x 72.4 x 8.8 mm // **Weight** 146g // **Warranty** 1-year // **Contact** Microsoft (Malaysia) Sdn Bhd // **Telephone** (03) 2179 6838 // **URL** www.microsoft.com/en/mobile

FORM AND FUNCTION

Lenovo ThinkPad 10 Tablet



AT A GLANCE

Processor
Intel Atom Processor Z3795

Operating System
Windows 8.1 Pro (32-bit)

Memory
2GB LPDDR3

Display
10.1-inch (1,920 x 1,200) WUXGA

Price
RM2,437



A full sized USB port is a rare sight on tablets that pride themselves for being thin.

CONCLUSION

As capable as it is, the ThinkPad 10's price and specifications make it rather niche.

SPECIFICATIONS

Graphics Intel HD Graphics // **Camera** Front: 2MP, Rear: 8MP w/ Auto Focus and Flash // **I/O** Micro-HDMI, USB 2.0, MicroSD // **Storage** 64GB eMMC // **Dimensions** 256.5 x 177 x 8.95 mm // **Weight** 598g // **Warranty** 1-year // **Contact** Lenovo Technology Sdn Bhd // **Telephone** (03) 7681 8000 // **URL** www.lenovo.com/my/en/

The Lenovo ThinkPad 10 Tablet represents a balance of power and features in a package that is all business. Its pedigree shines through, creating a device that feels as good as it is in hand as it is to use. However, with only an Intel Atom inside, this workhorse may be asking too much for the entrance fee.

The first impressions that the ThinkPad 10 gives off is similar to the ThinkPad 8 and the ThinkPad Tablet 2, which is one of quality. It's an aluminum-clad machine that's both thin and light at 8.95 mm and 598g, and feels every bit as comfortable and well-made as you'd expect.

Note however that the thickness and weight of the tablet varies a little, depending on the connectivity option. The one that we reviewed was the Wi-Fi variant.

We like how all the buttons and ports at the sides of the tablet are flush, while some are covered, with the exception of the bottom of the tablet, where accessories would be attached. It's recessed and the corners at the side of it are less rounded.

Naturally, this made us orient the tablet upside down when holding it with two hands while watching a video. However, this covers the rear 8MP camera but leaves the stereo speakers exposed for a better sound.

Powered by a 1.59GHz Intel Atom Z3795 SoC paired with 2GB of RAM and 64GB of storage (128GB option also available), the ThinkPad 10 is no powerhouse, but it packs enough punch for most people, especially for those who are looking for a work machine.

Content consumers will love the 10.1-inch (1,920 x 1,200) WUXGA IPS and 10-finger touchscreen display. It is excellent for viewing videos, especially HD content, and we dare say that it should be a contender for those looking for a tablet that could double as an e-Book or digital comic book reader as well.

The biggest feature of the ThinkPad 10 is its slew of accessories, which include covers and keyboards. Sadly, we didn't receive any of them so we couldn't really give an impression. Nevertheless, we know that this tablet will be able to do wonders once coupled with the right accessories.

by *Azizul Rahman Ismail*

TESTED & RATED

8.5/10

HWM MALAYSIA

Available at
PLAZA LOW YAT



MINIMALIST FITNESS BAND

Xiaomi Mi Band

Xiaomi took the smartphone market by storm in less than a year's time, following its expansion into Malaysia with the Mi 3, Redmi 1S, Redmi Note and Mi Power Banks. Not one to rest on its laurels, Xiaomi ventured into other product categories, a number of which have yet to find its way outside of China, save for the company's first wearable, the Mi Band. Priced at RM59, the Mi Band is remarkably affordable compared with the more expensive fitness trackers that are currently available today. But is it on par with the likes of Fitbit Flex or Jawbone UP24? The answer is more intriguing than you might think.

In terms of aesthetics, the Mi Band adopts a sleek, minimal design that exemplifies its modus operandi. The IP67 water-resistant sensor module, with its aluminum alloy construction, contains no buttons or display of any kind, save for the three LED indicators and vibration feedback. Combined with the rubber wristband, the Mi Band weighs about 13g, which is hardly noticeable once worn on the wrist.

Functionality-wise, the Mi Band is designed to monitor your daily activities, including your sleep patterns, which are then synced with the Mi Band app on your smartphone via Bluetooth LE (Low Energy). The app, of course, requires a Xiaomi account before it begins monitoring calories burned and distance traveled. While it's possible to track your specific fitness activities, such as running, cycling and so forth, the app currently does not offer exercise suggestions based on your daily goals. The battery life, on the other hand, is just stellar, as it trickled down to 80 percent after a week of extensive use, which holds true to its 30-day battery life promise.

There are little touches that we noted on the Mi Band. One, you don't have to keep your phone with you during your workouts. It automatically syncs your progress once both devices are within Bluetooth range. Second, you can keep track of your progress simply by raising the Mi Band to your face. The LEDs will then light up accordingly. In addition to its activity tracking features, the Mi Band can also serve as a timed alarm that wakes you up gently using the built-in vibration, or notify you of incoming calls with a little buzz. If paired to a Xiaomi smartphone, the Mi Band lets you bypass the passcode when you swipe and unlock the device in close proximity.

Overall, the Mi Band is an excellent wearable for first-time users. At RM59, the core features available on the Mi Band will serve the need of most individuals.

by *Ammar Uzair Aminuddin*

AT A GLANCE

Compatible OS
Android 4.4 or better

Build
IP67

Length
157-205mm

Weight
13g

Price
RM59



If black isn't your thing, you can replace the wristband with a more colorful option.

CONCLUSION

An affordable fitness tracker that more than holds it own with the pricier alternatives.

SPECIFICATIONS

Type Fitness tracking band // **Compatibility** Mi 3, Redmi Note 4G or any device with Android 4.4 and above, as well as iPhone 4S and above on iOS 7.0 and above // **Package** Mi Band core, band, charger // **Colors** Black, Blue, Turquoise, Orange, Pink or Green // **Dimensions** 14 x 36 x 9 mm // **Warranty** 1-year // **Contact** Xiaomi Malaysia // **Telephone** 1 800 281 182 // **URL** www.mi.com/my

TESTED & RATED

8.0/10

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SELF-DRIVING CARS

Google Builds First Fully Autonomous Vehicle Prototypes with Multiple Companies



Google's Self-Driving Car is a collaboration between the search engine giant and several other automotive companies.

Outside of CES 2015, Google was busy at the Automotive News World Congress that was held in Detroit. The search engine giant is working together with companies such as Roush, RCO, ZF Lenksysteme, Continental, Bosch, Frimo, and LG Electronics in order to build the first fully autonomous vehicle prototypes.

Initially revealed back in May last year, Google has since been working on different prototypes-of-prototypes, each one designed to test different systems of a self-driving car. Designed from the ground up with the sole purpose of having them drive themselves, these cars do not have a steering wheel, brake pedal or even an accelerator pedal. Instead, only the software and sensors that are installed into the car will do all the work.

"It takes a lot of parts to build a car, especially a fully autonomous one. To build our prototype, we worked with experienced automotive partners from around the world, and we couldn't have come as far as we have without them," Christ Urmson, Director, Google Self-Driving Car Project, spoke about the project. "As we continue to develop our first fully self-driving vehicle, we look forward to working with these partners and others to bring this technology into the world safely."

As it currently stands, these cars are still prototypes in testing, so we won't be seeing a fully functional self-driving car commercially available anytime soon.

BETTER CHIP, SMARTER CARS

NVIDIA Announces the Drive CX and PX for Cars



NVIDIA's new Tegra X1 allows the Drive CX to create an interactive dashboard with a resolution of 16.6 million pixels.

As we previously reported in Hot Shots, NVIDIA announced the new Tegra X1 mobile processor during its CES 2015 keynote. The new SoC is based off NVIDIA's new Maxwell architecture, carries 256 Maxwell CUDA cores, and is the first mobile chip that is capable of supporting 10-bit color 4K video at 60 FPS and 1 teraflop of computing performance.

NVIDIA implemented the Tegra X1 into the NVIDIA Drive initiative through Drive CX and Drive PX. Drive CX was designed by NVIDIA to be a digital cockpit system that displays a high resolution, interactive dashboard display for a car and its driver. NVIDIA claims that it is the most advanced visual computing platform for automobiles right now, and it is capable of driving a maximum of 16.6 million pixels within the dashboard display.

The other part of the NVIDIA Drive initiative is Drive PX, a supercomputer for the car that comprises two Tegra X1 processors, which give it a total of 2.3 teraflops. This power, NVIDIA said, gives a car both the power and ability to not just drive itself, but also to understand its surroundings in real time. One example shown during the keynote was how the Drive PX, with the use of a high resolution camera, could easily differentiate between the type of cars that are on the road and even tell the color of the traffic light.

gax

FEBRUARY 2015 VOL 11 ISSUE 11



MUTANTS BEWARE

WE REVIEWED INSOMNIAC GAMES' AWESOMEPOCALYPTIC SHOOTER

NEWSWIRE
NEW NINTENDO 3DS XL, PILLARS OF ETERNITY

REVIEWS
LITTLEBIGPLANET: MARVEL SUPER HERO EDITION, THE SIMS 4: OUTDOOR RETREAT

XL ONLY

New Nintendo 3DS XL Goes on Sale February 13

It's official: The New Nintendo 3DS XL will be heading to U.S. stores on February 13 for US$199.99 (approx. RM711). Available in New Red and New Black colors, the system brings a number of improvements over the previous models, such as a faster CPU, face-tracking 3D, upgraded cameras, a new-and-improved Internet browser, built-in NFC for amiibo support, as well as additional buttons (C stick, ZL and ZR triggers).

Noticed anything missing? That's right, the non-XL variant of the New Nintendo 3DS, which offers Super Famicom-colored buttons and interchangeable faceplates, was conspicuously absent from the announcement, despite being released in Japan and Australia, and subsequently announced for Europe. Two highly-anticipated games – The Legend of Zelda: Majora's Mask 3D and Monster Hunter 4 Ultimate – will be launched alongside the New Nintendo 3DS XL.

There will be two limited edition systems at launch. The Majora's Mask Edition New 3DS XL costs US$199.99 and does not come with the game pre-installed, while the Monster Hunter 4 Ultimate New 3DS XL Bundle will include the game for US2$229.99 (approx. RM818). Unlike past models, the New Nintendo 3DS XL will not come with an AC adapter.



The Legend of Zelda: Majora's Mask 3D and Monster Hunter 4 Ultimate – will be launched alongside the New Nintendo 3DS XL.

BETTER LATE THAN NEVER

Grand Theft Auto V PC Delayed Till Late March

PC gamers who've been waiting to get their hands on the PC version of Grand Theft Auto V will have to wait a little longer, as Rockstar Games has delayed the game until March 24. According to the official blog post, the delay was necessitated by a few additional weeks of testing and polishing.

"Moving a release date is never a decision we take lightly and is a choice we make only when we know it is in the best interests of the game and our fans. Thanks everyone for your understanding and we assure you these few extra weeks will be worth it when the game does arrive in March."

Grand Theft Auto V for PC pushes the in-game visuals to even greater levels of detail, supporting up to 4K resolution and triple monitor configurations. Players will be able to share gameplay clips that they create using the new Rockstar Editor to both Rockstar Games Social Club and YouTube.







ALMOST THERE

Fan-Backed Pillars of Eternity Set for March Release

Kickstarter-success Pillars of Eternity is a fantasy RPG from Obsidian Entertainment, which raised US$3,986,929 through crowdfunding since its unveiling in September 2012. The game, which hearkens back to the classic CRPGs like Baldur's Gate and Icewind Dale, will feature 2D prerendered backgrounds with a fixed isometric perspective and a party-based, tactical gameplay. Following years of development, the team officially announced a March 26 release date on the official website.

According to the developer, the game can be purchased digitally on Steam, GOG and other online retailers on release day. Those who pledged on Kickstarter will be able to redeem the game and the relevant rewards via the Backer Portal.

"The community has been incredibly forthcoming with their feedback, and we want to thank all of our fans for being so engaged with the game's development - and for giving us the time to implement their suggestions and ensure Pillars of Eternity is a game we can be proud of," said Feargus Urquhart, CEO of Obsidian Entertainment.



HISTORY'S DARKEST SECRET

Experience The Order: 1886 on February 20

Ready at Dawn's PS4-exclusive 'The Order: 1886' is set to release on February 20. First unveiled during E3 2013, the game revolves around an elite order of Knights, formed since the days of King Arthur and the Knights of the Round Table to keep the world safe from a powerful threat for centuries. As Sir Galahad, players will join a centuries-old war that will change the course of history forever.

The setting? A reimagined Neo-Victorian London where advanced weaponry, airships and electric trains figure prominently due to the accelerated Industrial Revolution. If you're ready to battle enemies both old and new in this intense third-person action-adventure shooter, the Standard Edition will retail for RM179, while the PSN version will cost RM160.

A PlayStation 4 Bundle Pack will also be available for RM1,799, which includes a PS4 console, a copy of The Order: 1886, 12-month PS Plus subscription, 1-year extended warranty service, RM45 in PSN prepaid value, and an exclusive T-shirt – while stocks last. From February 20 to March 5, PSN users will receive the Knight's Arsenal DLC and Knight's Endurance Pack with the purchase of the digital release, while PS Plus members will enjoy an additional 10% discount with their purchase.







ABSOLUTE ZANY FUN

Sunset Overdrive

AT A GLANCE

Genre
Third-person action, shooter

Developer
Insomniac Games

Publisher
Microsoft Studios

Platform
Xbox One



A fun and novel way to move around in the game world is by 'grinding' along many supported surfaces as if you're on a skateboard.

Video game creators and marketers like their buzzwords. Today, one of the terms people like to talk about when promoting their new game is "traversal" – namely, the ways in which a player can move around the virtual world. Many games have put a lot of effort into making traversal enjoyable, and some make it the central mechanic of the game.

Insomniac Games' Sunset Overdrive, Microsoft's unusual candidate for an Xbox One exclusive, does amazing things with traversal. While it is ostensibly an over-the-shoulder shooter, giving the player the task of shooting an endless horde of grotesque mutants with a wide range of bizarre firearms, the core of what makes it fun is a city built with the game's movement systems in mind.

The nameless hero of Sunset Overdrive can "grind" like a skateboarder along ledges, railings, power lines and everything else that looks grindable. He (or she, depending on your gender preference) can also bounce off almost every other object, including cars, cafe umbrellas, bushes and awnings. The immediate temptation is to try to never touch the ground, turning the entirety of Sunset City into a fast-moving game of The Floor Is Lava.

If this sounds a bit silly, well, it is. Sunset Overdrive is an unashamedly ridiculous game. There are guns that fire vinyl LPs, exploding teddy bears and flaming bowling balls, which can be augmented with power-ups called "amps" that can add extra fire, ice or electricity, or completely silly powers such as a voiceover that tells the player how awesome they are.

At the center of this action is a wonderfully (as mentioned above) customizable hero, who can be male or female at the player's discretion and sport a wide variety of hairstyles and bizarre fashions. The clothing is particularly diverse, allowing multiple layers of weird, brightly-colored items. Nothing is gender-locked either – female characters can wear a magnificent beard if they wish and male characters can slip into miniskirts. It all adds to the game's contagious sense of chaotic fun.

The story involves an apocalypse (dubbed by the game an "awesome-apocalypse") triggered by



Night Defense is the final challenge in Chaos Squad, the 8-player co-op mode where you have to protect your vat of Overcharge.

CONCLUSION

An Xbox One exclusive, but one of the rare next-gen console gems we've come across. Every shooter fan should play this. Now.

a mega-wealthy soft drink company launching a new energy drink before it has been adequately tested. It turns out that just one can of the stuff will transform a human into a grotesque, tumor-covered mutant. This bright orange soft drink, called Overcharge, sets the visual tone for the entire game. Far from the gloomy browns and greys of most big-budget action games, Sunset Overdrive is relentlessly colorful and cheerful. Even the mutants, dubbed ODs, explode into bright orange splatters when they die.

The game's humor never lets up. Some of it feels forced, with the game perhaps trying a little too hard to be zany and random, but more often than not the gags work, and most players will laugh out loud at least a few times. It also breaks the fourth wall frequently, with several characters making it obvious they know they are in a game, and even interacting with the game's interface. One memorable moment sees the hero stealing the energy gauge from the top of the screen and stabbing a boss through the head with it.

Despite its bright colors and motion, this game can also be unsurprisingly extreme with its violence and to a certain extent, gore. Though in an inoffensively over the top way that is impossible to take seriously.

Sunset Overdrive is a huge amount of fun, but it is hampered by a few design issues. Missions and side quests can get repetitive, especially for those that require players to do fetch-and-collect or kill-enemies-in-a-zone types. The game also requires a fair bit of time to master and get the hang of the fast-paced traversal system. The system is a prime example of the "easier to learn, hard to master" adage. That said, any game in which players will choose not to use the fast travel system because of how much fun it is to get around the very large map manually has clearly done something right.

Sunset Overdrive does not succeed at everything it attempts to do, but it so bravely laughs in the face of everything that a commercially successful game is supposed to be that one has to admire its chutzpah. It is colorful, rude and irrepressibly silly, but also tightly designed and endlessly fun. Xbox One owners, this is a must-buy.

by *Christopher Lee*

Read more at GAMEAXIS.com

TESTED & RATED

9.0/10

HWM MALAYSIA

TEST EDITOR'S CHOICE HWM MALAYSIA



SUPERHERO SACKPERSON

LittleBigPlanet PS Vita: Marvel Super Hero Edition

NOT REALLY THAT SPECIAL

If you're feeling excited after reading the title, thinking there's a special edition for the PS Vita version of LittleBigPlanet, then it is uncertain whether you will be pleased of disappointed. Because, yes and no; you are getting a number of Marvel-related extras, such as costumes and stages – in the form of a free download code included in the box. But otherwise, it is no different from the first release.

Even your PS Vita will just recognize the game simply as 'LittleBigPlanet – PS Vita'.

However, if you have yet to play the game before, you should, and here's why – aside from the Marvel-themed DLCs that are bundled in for free.

BITS OF FUN THAT KEEP ON GOING

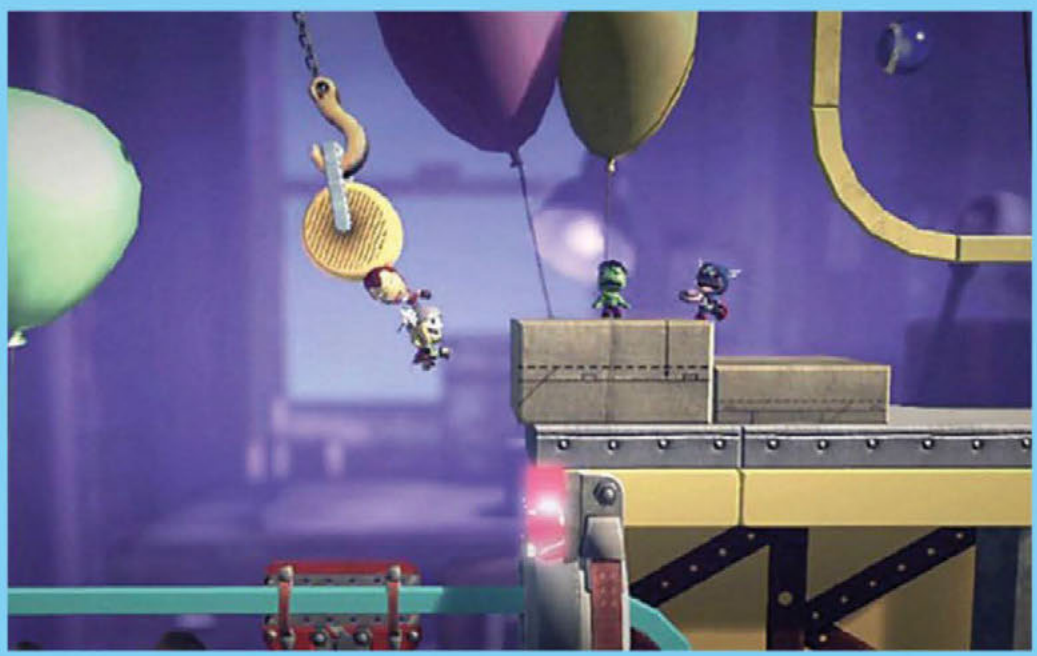
The LittleBigPlanet series are essentially platformers, with a loosely put-together story for you to get a feel of what the game is like. Arguably, the real value of the game comes from playing other user-created stages, or making one of your own. The PS Vita version of the game is no different, but you will also have to make use of the touch screen and the rear touchpad of the PS Vita to solve certain puzzles. Also in the Vita version of the game is the addition of more game modes like racing, puzzle and even fighting, turning it into 'a platform for games', as well as allowing players to create the same types of games.

It is of little exaggeration if anyone said that the PS Vita version of LittleBigPlanet is the epitome of mobile gaming. As each individual stage is relatively short and bite-sized, it's the perfect game to play between bus or train stations, or any other time when you have a couple of minutes to spare, but don't have enough to immerse yourself in an engaging RPG. The touch controls – on the front and back of the Vita – prevent this game from feeling like your usual platformer, and if you preload your game with some of the other user-created stages – or even come up with your own – before you head out of your house, you can keep the experience fresh for a very long time.

NOT ALL THAT MARVEL-OUS

As for the Marvel-related content, most of them are merely cosmetics, which either allow you to dress up your character as one of the Marvel superheroes, or fill up your stages with stickers, decorations, effects and objects with the Marvel theme. The Marvel-themed stages are also there for you to play; in case you were beginning to run out of things to do with LittleBigPlanet, but more likely they will serve as inspiration as for how you should use your new Marvel-themed props.

by *Ian Chee*



AT A GLANCE

Genre
Puzzle, Platformer

Developer
Double Eleven, Tarsier Studios

Publisher
Sony Computer Entertainment

Platform
PS Vita



CONCLUSION

While owners of the game have little reason to get this, PS Vita owners who are new to LittleBigPlanet definitely should.

TESTED & RATED

8.5/10

HWM MALAYSIA



BUILT SMART

SimCity BuildIt

FORGET EVERYTHING YOU KNOW

The SimCity brand has been synonymous with the city-building genre for years now. After two less-than-stellar attempts at porting the PC experience to iOS and Android devices, it seems the old adage 'third time's the charm' rings true for EA, as the new SimCity BuildIt plays rather well on mobile devices, with a few minor caveats. The first thing you need to know about SimCity BuildIt is that it's a free-to-play title with microtransactions. Despite its freemium model, there's rarely a need to use real money to progress, more so when it's played in short bursts.

WHY PATIENCE IS A VIRTUE

Residences are the key to growing the city, rewarding players with Simoleons, XPs, and population numbers with each subsequent upgrade. SimCash, which can be earned by completing city achievements, is best reserved to unlock additional slots for your stores and factories. Most specialization buildings, however, require Golden Keys. Series purists may balk at the time-based, resource-producing mechanics that form the backbone of the gameplay, yet there's an odd sense of satisfaction when you discover the ideal combination of building placements, which in turn increases the happiness meter. After all, patience is the key for success.

by *Michael Low*

AT A GLANCE

Genre
Simulation

Developer
tracktwenty

Publisher
Electronic Arts

Platform
iOS (Tested), Android



CONCLUSION

Visually beautiful and relatively fun, as far as freemium games go.

TESTED & RATED

8.0/10

HWM MALAYSIA



WEEKEND ESCAPADE

The Sims 4: Outdoor Retreat

IN THE WOODS

Having reintroduced ghosts and pools with a string of free updates, the vocal fanbase seems to have mellowed out a bit, which means that now's as good a time as any for EA to introduce the first Game Pack, titled The Sims 4: Outdoor Retreat. Notice we didn't use the term Expansion Pack? That's because a Game Pack sits somewhere between an Expansion and a Stuff Pack. For SGD24.90 (approx. RM67), this digital add-on revolves around Granite Falls, an outdoorsy vacation spot where your Sims can rough it out or rent a cabin (or lodge) – up to a week-long getaway.

GATHER 'ROUND

Like past expansions, Outdoor Retreat brings many new objects and new outfits that are of the camping or hiking nature, including bear costumes (don't ask). Sims can huddle around a campfire to trade stories and roast marshmallows, experiment with wild plants, or venture further into the woods for a little surprise. The more romantically-inclined can stargaze with their other half, or WooHoo in a tent. But that's not all to the Game Pack, as there are also minor changes to the UI, namely the ability to check on Sims that are away, and a smartphone hub.

by *Michael Low*

AT A GLANCE

Genre
Life Simulation

Developer
Maxis, The Sims Studio

Publisher
Electronic Arts

Platform
PC



CONCLUSION

A fun distraction from the base game that may not be everyone's cup of tea.

TESTED & RATED

8.0/10

HWM MALAYSIA

aperture

February 2015
Vol 7 Issue 6



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More Camera Goodness for 2015

In this month's edition of Aperture, we have to opportunity to offer you a closer look at two premium cameras, each in its own class – the FUJIFILM X100T and the Sony A7 II. As an update to the popular X100S, the X100T is definitely improved in several aspects, such as faster focusing speed and overall user-friendliness. The A7 II, on the other hand, is touted as the world's first compact full-frame camera with 5-axis image stabilization technology.

We also covered a few stories on some of the cameras that were announced during CES 2015, Canon with its five new compact cameras and Nikon's very own first touchscreen DSLR, the new D5500. As for the Learn section, we highlighted some of the notable mounts and accessories that you can consider for your GoPro action camera.

For any comments or feedback, you can always head on over to forums.hardwarezone.com.my and share your thoughts with us.

Ammar Uzair Aminuddin
HWM Malaysia

aperture uses the **ASUS ProArt PA238Q monitor** for all its image editing and viewing

ASUS



These are Canon's two notable PowerShot cameras from CES 2015.

2015 POWERSHOTS

Canon Reveals Five New PowerShot Cameras at CES 2015

It looks like most major camera brands were at the Consumer Electronics Show (CES) this year to showcase their latest camera lineup. One such company was Canon, who announced five new compact cameras: three of which are from the PowerShot SX series, while the remaining two represent the stylish PowerShot ELPH series.

Super-zoom flagship PowerShot SX710 HS touts a 20.3MP high-sensitivity CMOS sensor and DIGIC 6 engine, with Canon's HS system and aa 30x optical zoom lens (equivalent to 25-750mm) for excellent low-light performance. The SX530 HS, on the other hand, offers an astounding 50x optical zoom lens (equivalent to 24-1200mm), while equipped with a 16MP high-sensitivity CMOS sensor, DIGIC 4+ engine, Intelligent IS, as well as a dedicated movie button to record Full HD video in a moment's notice. The 18x zoom SX610 HS comes fitted with a 20.2MP CMOS sensor and DIGIC 4+ engine. All three PowerShot SX series cameras feature built-in Wi-Fi and NFC connectivity.

The stylish, yet more affordable PowerShot ELPH series welcomed the ELPH 170 IS and ELPH 160. Both cameras sport a 20MP CCD Sensor, DIGIC 4+ engine, and 720p HD video recording with the dedicated movie button. The main difference between the two models are in their lenses, where the ELPH 170 IS has optical image stabilization (IS) and 12x zoom built in, while the ELPH 160 has 8x zoom.



Pricing for the five PowerShot cameras are as listed below:
PowerShot SX710 HS: US$349.99 (approx. RM1,425)
PowerShot SX610 HS: US$249.99 (approx. RM889)
PowerShot SX530 HS: US$429.99 (approx. RM1,529)
PowerShot ELPH 170 IS: US$149.99 (approx. RM533)
PowerShot ELPH 160: US$119.99 (approx. RM 427)

POWERFUL PORTRAITURE

Samyang Announces New 135mm f/2.0 ED UMC Lens



The Nikon F version of this lens comes with an AE chip to enables focus confirmation.

Following a series of teasers and leaked photos, Samyang finally revealed its new full-frame 135mm f/2.0 ED UMC lens. As a prime telephoto lens, it supports manual focusing and has an adjustable aperture ring. The package includes a detachable lens hood, both front and rear lens caps, and a soft carrying bag.

Samyang's new lens is compatible with most camera mounts, including Canon EF, Nikon F (AE), Pentax K, Sony A, Sony E, Canon M, Samsung NX , FUJIFILM X, Four Thirds and Micro Four Thirds. Constructed with 11 elements in 7 groups and one ED lens element, the lens is excellent for shooting close portraits, night scenery, and wildlife photography, thanks to its extremely low chromatic aberrations and shallow depth of field. It's also covered with multi-layered UMC anti-reflective coatings for improved contrast and accurate color reproduction.

TOUCH IS HERE

Nikon D5500 Sports Touchscreen Vari-Angle LCD

Nikon took to CES 2015 to launch the company's first DSLR camera with a touchscreen LCD, the D5500. Slimmer and lighter, the touch-enabled D5500 is very much derived from its predecessor, which is none other than 2013's D5300. For a start, the new midrange DX-format DSLR sports the same 24.2MP CMOS sensor, 39-point AF system, EXPEED 4 engine, and built-in Wi-Fi.

New to the D5500 is a large 3.2-inch touchscreen Vari-angle LCD, which complements the glare-free optical viewfinder. The LCD screen allows on-the-fly adjustment of shutter speed, aperture, ISO, focus area, as well as other essential settings. Users will also be able to pinch the screen to zoom in and inspect the focus up close. In addition, Nikon's new Flat Picture Control mode offers more room for creativity during post-processing.

On top of the D5500, Nikon also announced two new Nikkor lenses, the telephoto zoom AF-S DX NIKKOR 55-200mm VR II (f/4.5-5.6) and the telephoto prime AF-S NIKKOR 300mm VR (f/4), which is also touted as the world lightest 300mm full-frame fixed focal length lens.

The Nikon D5500 comes in red and black, with U.S. retail pricing set at US$899.95 (approx. RM3,198) for body only and US$999.95 (approx. RM3,553) with the inclusion of Nikon's standard DX 18-55mm kit lens.



The D5500 is available now in Nikon's flagship store and retailers.



MOUNT HERE, MOUNT THERE!

Mounts and Accessories for GoPro HERO4

Whether you're an action sport junkie or someone who likes to document his or her unexpected journey, the GoPro HERO4 action cameras are made for you. The minimalist design, solid durability and high quality photography and cinematography have made the HERO4 the most advanced action camera in the market. But to get the most out of this nifty camera, you'll have to look to GoPro for a wide range of mounts and accessories that enable the HERO4 to go with you wherever you want.

3-WAY

One of the best mounts you can get for your GoPro action camera. As its name suggests, the 3-Way is a versatile mount that can be used in three ways. First, you can detach the handle from the arm to use as a camera grip to achieve shots that are difficult to capture from a body mount. Two, the folding arm can be extended to make taking selfies a breeze, while the mini tripod that's concealed inside the handle can be used for time-lapse shooting.





SUCTION CUP

This industrial-strength Suction Cup mount is a must-have for motorsport enthusiasts as it mounts the GoPro action camera onto any metal or glass surface. The suction mechanism provides a powerful holding strength that can hold up to speeds of 150mph, as claimed by GoPro. With a choice of standard and quick release base, motorcyclist and race drivers will find this mount useful as it is best for recording their skills and performance, provided that it's attached to a clean surface.

FOR YOUR CONSIDERATION

FEIYU TECH FY-G4 3-AXIS HANDHELD STEADY GIMBAL

Featuring a cleaner and sleeker design than its predecessor, the FY-G4 is an improved 3-axis handheld gimbal that incorporates super-smooth brushless motor technology with solid aircraft-grade aluminum. It's designed to work with the GoPro HERO4, it offers a 118mm grip for intuitive one-handed operation, and is distilled down to three simple shooting modes to complement your creative efforts.



GOPOLE SCENELAPSE

Tired of getting the same old steady time-lapse video footage? GoPole Scenelapse rotates up to 360 degrees, so you'll be able to capture panoramic photos and video in a whole new perspective. The time-lapse device lets you set the desired angle and duration (up to 60 minutes), and it'll take care of the precision work for you, resulting in beautiful work of art.





JAWS: FLEX CLAMP

The application of the Jaws: Flex Clamp mount is literally limitless as it give you the ability to clamp your camera virtually anywhere, so long as the object is from 0.25-inch until 2-inch in diameter. There's a quick-release base on top of the clamp, so you can attach and detach the camera with ease. The optional neck also makes positioning that much easier, resulting in one of the most versatile mounts from GoPro.



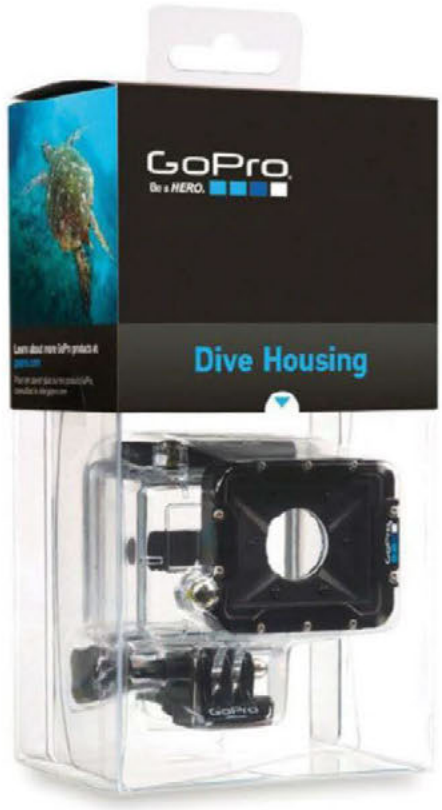
HEAD STRAP + QUICKCLIP

This particular combination nets you a Head Strap and a QuickClip accessory, which lets you capture all the action from a headlamp-like perspective. The fully-adjustable Head Strap can be worn directly on your head, while the low-profile QuickClip attaches to your cap or other thick object between 3mm to 10mm. Highly recommended for POV-style filming.



CHESTY

Another mount that you should consider for the GoPro action camera is the curiously-named Chesty. The chest harness straps the camera to your chest area, allowing for an engaging view of your sporting prowess, such as skiing, mountain biking, or river rafting. This fully-adjustable accessory is also available in a kid-friendly size (Junior Chesty).



DIVE HOUSING

An essential buy for those who plans to capture the beauty of the underwater world and its magnificent creatures, the ultra-durable Dive Housing is waterproof to 60 meters, and is different from other GoPro, as it's fitted with a large glass lens that provides excellent video clarity and vignette-free images. It comes bundled with Standard, Skeleton and BacPac Backdoors.

STEADY AS SHE GOES

Sony A7 II

AT A GLANCE

Mount
Sony E-mount

Sensor
Full-frame Exmor CMOS sensor

Megapixels
24.3-megapixel

Dimensions
126.9 x 95.7 x 59.7 mm

Weight
556g (body only)

Price
RM5,299 (body only)



Having in-camera anti-shake allows for handheld shots in low-light.



We'd easily go up to ISO 12,800 with this camera.

The A7 was a ground-breaking camera in that it was the first mirrorless system camera to feature a full-frame sensor. A solid camera that proved the concept was feasible, it laid the groundwork for the A7R and later on, the A7S. Its direct successor, the new A7 II has finally been released and Sony again extends the bar by making it the first full-frame mirrorless camera to feature 5-axis in-camera image stabilization. This feature was previously only available in flagship Olympus OM-D series cameras. With its introduction, the A7 II can now use just about any lens, even older manual lenses via adapters and still retain full image stabilization, which Sony claims an equivalent to 4.5 stops of correction.

The A7 II comes just about a year after the launch of the A7, and while the overall design is largely similar, the new body is slightly wider and taller, and features an improved layout that seems to have taken into account a lot of the grouses with the original design. The buttons on the back of the camera are slightly larger now, making them easier to activate; the shutter button is also larger, and more crucially has been shifted further to the front, making it easier to reach for. Everything is just better spaced, with the dials feeling more sensibly sized now, making the camera more comfortable to use overall. Even so, it is still one of the most compact full-frame ILCs around.

The menu system hasn't changed though, with the exception of a few added movie options as the A7 II now supports capture up to 1,920 x 1,080 (60p) at a maximum bit-rate of 28Mbps in AVCHD and XAVC-S.





CONCLUSION

Image stabilization not that big of an upgrade to the already excellent A7, but thoughtful tweaks make the A7 II a joy to use.

SPECIFICATIONS
Lens Compatibility E-mount lenses // **Focus System** Fast Hybrid AF (phase-detection AF/contrast-detection AF) // **Image Stabilizer** Image sensor-shift mechanism with 5-axis compensation // **ISO Sensitivity** Auto/ISO 100 to ISO 51200 // **Viewfinder** 1.3cm (0.5-type) electronic viewfinder (color) // **Warrranty** 1-year // **Contact** Sony Customer Interaction Center // **Telephone** 1 800 88 1233 // **URL** www.sony.com.my

While it appears that the autofocus system is also largely the same – with the same layout that has 117 phase detection points and 25 contrast detection points – Sony claims that the A7 II has improved autofocus algorithms resulting in up to 30% faster AF performance compared to the original A7. Our own testing shows this to be a pretty accurate estimation, and certainly puts it on par with some of the other relatively newer DSLRs like the Nikon D750.

More options for customization is something Sony has made an effort to implement here, as no less than 56 functions can be assigned to a total of ten programmable buttons, making it easier for you to set the camera up just the way you want it.

The overall experience of shooting with the A7 II doesn't change from the original – stick to shorter lenses and you'll be perfectly comfortable. Using longer telephoto lenses still feels a little unbalanced, but we do think it's a lot better with the new handgrip – the added girth of the new body design gives you more to hold on to than before, and that really makes quite the difference. Another thing we found was that the EVF can be a little too dark at times, but that's an easy fix – just go into the menus and set brightness manually according to the environment.

As might be expected, the images from the A7 II do not vary too much from the original, though we do find that it handles noise slightly better. We'd readily print images at ISO 12,800 with this camera after a bit of sharpening in post, but we do find that the white is notably less neutral.

We hardly found ourselves needing to go slower than 1/60s outdoors. Even indoors in our labs, we managed perfectly sharp images handheld at a manageable 1/13s, at about the 35mm setting. The 5-axis IS doesn't seem to be a major factor unless you're really unsteady or use a lot of manual lenses.

In terms of effective resolution, the A7 II doesn't change much from the original, which is to say there's all the detail you would expect from a 24-megapixel camera. The bigger difference comes at the higher ISO settings, where the improved algorithms of the new model handle the color noise slightly better. Images are noticeably biased towards warm tones though, so you'll get nice rosy tones outdoors, but a bit too much warmth under tungsten lighting.

Is the difference enough to justify an upgrade if you already have any of the A7 series? Probably not. But if you're in the market for a full-frame camera or shoot in low light a lot, we'd definitely recommend you take a look at the A7 II.

by *Marcus Wong*

TESTED & RATED
8.5/10
HWM MALAYSIA

Available at
PLAZA LOW YAT



TEST
EDITOR'S CHOICE
HWM MALAYSIA

STREET SHARPSHOOTER

FUJIFILM X100T

Most major camera manufacturers these days are racing to make the next best compact camera with full-frame sensor. FUJIFILM, on the other hand, continues to introduce premium APS-C cameras with DSLR-like performance, in a time where not many are up to the challenge. As the latest model in the X series, the FUJIFILM X100T improves on its predecessor in almost every respect, and then some.

At first glance, the X100T is nearly identical to the X100S, which derived much of its looks from the rangefinder cameras of yesteryears. Build quality is as you'd expect from the X series, from its magnesium alloy body to the black faux-leather textured surface that runs around the better part of the camera. Like the X100S, it comes equipped with a hot shoe, X-Trans CMOS II sensor, EXR Processor II, and a non-interchangeable 23mm f/2.0 FUJINON fixed focal length lens.

By now, you may be thinking: "That doesn't really sound like a lot has changed." Well, not only are there cosmetic changes, but the control layout has been reworked – resulting in smaller buttons, improved control dial, and relocated Drive and Quick Menu buttons for easier right-thumb operation. Furthermore, the 1,040k-dot LCD is physically larger at 3.0-inches, while the hybrid viewfinder gets an electronic rangefinder mode to assist with precise focusing. Most important of all, the X100T now comes with built-in Wi-Fi, which lets you transfer photos and plan your shots remotely on your smartphone via the FUJIFILM Camera Remote app.

Since the X100T has a fast lens and high ISO sensitivity (up to ISO 51200), we took it to the streets for a full day of shooting, and the result was impressive as the autofocus was spot on nine out of 10 times. With its rapid focusing speeds and the new 'Classic Chrome' film mode, we think street photographers will have a field day with the camera. It also handled chromatic aberrations very well, with some minor purple fringing in high-contrast areas.

We then brought the X100T into our lab to perform our standard ISO test. From there, we noticed that the camera handles noise exceptionally well. Images are generally sharp, with JPEG photos looking great up to ISO 3200, while still usable up to ISO 6400 is certain situations. Expect better performance when shooting in RAW.

by *Ammar Uzair Aminuddin*

TESTED & RATED

9.0/10

HWM MALAYSIA

AT A GLANCE

Image Sensor
APS-C CMOS
(23.6 x 15.6mm)

Megapixels
16.3

Dimensions
126.5 x 74.4 x 52.4mm
(W x H x D)

Built-in Memory
55MB

Price
RM4,288



With the X100T, the exposure compensation dial now goes up to +/-3 stops.

CONCLUSION

Shooting with the FUJIFILM X100 is incredibly fun, and the X100T is the most fun yet.

SPECIFICATIONS
Max Resolution 4,896 x 3,264 // **Video Modes** Full HD, up to 60 FPS // **ISO Sensitivity** Auto, 200-6400 (Extended Mode: 100-51200) // **Built-in Flash** Yes // **Viewfinder** Optical and Electronic // **Warranty** 1-year // **Weight** 440g // **Contact** FUJIFILM (Malaysia) Sdn Bhd // **Telephone** (03) 5569 8388 // **URL** www.fujifilm.com.my

Available at
PLAZA LOW YAT

SORT OF HEROIC

GoPro HERO

AT A GLANCE

Aperture
Fixed f/2.8

Image Resolution
5-megapixel, Wide FOV, 2,592 x 1,944

Waterproofing
Up to 40m w/ standard backdoor

Weight
111g

Price
TBA



You get all of these inside the box.

CONCLUSION

Bare basic in price and performance, the GoPro HERO is oddly the best in the hands of the experienced.

SPECIFICATIONS
Battery 1,180mAH, 3.8V, 4,484mWh // **Video Modes** 1080p at 30 FPS, 720p at 60 FPS, 720P w/ SuperView at 60 FPS // **Video Format** H.264 codec, .mp4 file // **Audio** Mono, 48kHz sampling rate, AAC compression // **Storage** 1x microSD card up to 32GB // **Connectivity** Mini-USB // **Warranty** TBA // **Contact** FunSportz Sdn Bhd // **Telephone** (03) 7733 8939 // **URL** www.funsportz.com.my

TAP FOR GALLERY

Think of action cameras and chances are, the first thing that comes to mind is the GoPro brand. In the same way, when you think of GoPro, the first thing that comes to mind is the four-figure prices that come with them. Today, we take a look at one that doesn't fit the latter stereotype: the GoPro HERO.

Unlike other GoPro action cameras of today, which come with a color suffix to the name, the basic HERO has none of that, indicating its bare-basic functions. In other words, it's an entry-level action camera. That said, it still does 1080p recording at 30FPS and 720p at 60FPS. It can also take 5-megapixel stills, and there is the option to take five shots-per-second burst photos too.

It is also waterproof to 40m, thanks to its housing and the standard flat backdoor. While you can remove the backdoor and change it, the HERO is stuck inside the housing. This might mean all sorts of trouble, especially if you've gotten a scratch on the bit in front of the lens.

Back to the backdoor: there is a skeleton backdoor bundled in that you can use for improved audio recording, at the cost of dust and waterproofing. There are also two mounts that you get in the box, along with a rubber locking plug to make sure the unit stays mounted despite intense and sudden movement.

Of course, being an entry-level unit, the GoPro HERO does have some problems, chief of which are its lack of wireless connectivity and the usual GoPro accessory slot. This means that you will be shooting blind, which is no doubt a problem unless you happen to have a lot of experience with action cameras. Other issues include not supporting microSD cards above 32GB, and the use of a Mini-USB port for charging and file transferring, instead of the now more commonly available Micro-USB.

On the bright side, the GoPro HERO does come with some interesting features. The first of them is called QuikCapture, which lets you press or hold the capture button while it is turned off. Pressing turns it on and immediately starts recording until the next press – which turns it off again. Holding it down for two seconds, on the other hand, makes the GoPro HERO capture time-lapse photos until the next press.

The next feature is called SuperView, which stretches your 720p videos a little, giving it a 4:3 aspect ratio. As for Auto Low Light, it is as it says: the GoPro HERO drops its shutter speed automatically in dim lighting, so that your videos aren't too dark.

The GoPro HERO is a bare-basic action camera which, counter-intuitively, isn't very beginner friendly. That said, if you happen to have a lot of experience with action cameras, its price may give you a reason to pick it over the top-of-the-line units for more angles in a single recording sequence.

by *Ian Chee*



TESTED & RATED

8.0/10

HWM MALAYSIA

Available at
PLAZA LOW YAT

THE NEXT 'MASTER'

Braun Master II

Braun is no stranger to the action camera market, having launched the follow-up model to fill the void left by the now-discontinued Braun Master. Known simply as the Braun Master II, this model improves on the original in many ways, one being the inclusion of a newer high-sensitivity CMOS sensor.

Design-wise, the main unit of the Master II is less intimidating than its button-heavy predecessor, opting instead for cleaner lines and durable matte black finish. Though it did not stray far from the Master's form factor, the 2-inch TFT display is no longer a detachable module, this time integrated into the Master II's chassis. This German-made action camera has also relegated four essential buttons to the top panel, while the microSD card slot, Micro-USB port, and Micro-HDMI port are covered with a rubber flap.

On the front, there are two light indicators, with a built-in tripod socket at the bottom of the unit for easy attachment without the need for a separate mount. Due to the reduction in buttons, much of the Master II's controls are relegated to the mobile app, which is available as a free download from Google Play and Apple App Store. Once installed on your smartphone of choice and connected to the Master II via Wi-Fi, you can remotely take photos, or start and end video recording – all while seeing what the camera is recording directly on your phone. This is especially useful when the Master II is fitted into the waterproof case, as it can rather tricky to gain access to certain buttons once you've submerged the unit underwater (up to 60 meters depth).

In terms of performance, the Master II delivers Full HD video recording with fairly consistent quality, notably in brightly-lit conditions. Noise, however, is quite prevalent in low-light environments. While colors are slightly less vivid than expected, the camera does slow motion recording at 120 frames per second, as well as time-lapse video, thanks to built-in video image stabilizer. The Ambarella A7L chip also ensures improved responsiveness and battery performance.

One nice inclusion is the ability to transmit the photos and video that are stored on the microSD card to your phone using the Master II app. Like its predecessor, the Master II comes bundled with many accessories, including several mounts, adhesive stickers, buckle, hand strap, and a wireless remote. Quite a comprehensive package for the price of RM1,499.

by *Ammar Uzair Aminuddin*



TESTED & RATED

8.0/10

HWM MALAYSIA

Available at

PLAZA LOW YAT

Stand a Chance to Win Braun Action Cameras*
(Worth Over RM4,500!)

Step 1: 'Like' <FB icon>/ myhwm and <FB icon>/ braunactioncammy

Step 2: Click on 'Braun Action Camera' contest tab

Step 3: Answer the questions, fill in your particulars, along with 'BraunActionCam' as the special code

** Terms and conditions apply.*

AT A GLANCE

Type
Action Camera

Image Sensor
16MP Panasonic CMOS Sensor

Remote Control
Yes

Weight
82g

Price
RM1,499



Apart from the wireless remote, the Master II can also be monitored and controlled via Braun's Master II app on your smartphone.

CONCLUSION

The Master II includes a wealth of accessories that are rarely bundled together with action cameras.

SPECIFICATIONS
Video Resolution NTSC: Full HD at 60 FPS / PAL: Full HD at 50 FPS // **File Format** H.264 / MP4 // **Memory** microSD card (expandable up to 64GB) // **Dimensions** 58 x 46 x 38 mm // **Warranty** 1-year // **Contact** SC Distribution Sdn Bhd // **Tel** (03) 4296 2628 // **URL** www.braun-phototechnik.de

FEATURE

BEHIND THE SCENES AT NIKON AYUTTHAYA

It's not every day you get an opportunity to view first-hand how a DSLR camera is assembled, so when the opportunity arose to travel down to Nikon's facilities in Ayutthaya, Thailand, we certainly jumped at the chance. You may recall that this is the same factory that was hit by severe flooding back in 2011, so that certainly provided an additional level of interest – just how well had Nikon recovered from that disaster in just three years?

Text by *Marcus Wong*

PICTURE NIKON

AN EXERCISE IN PRECISION

A quick introductory briefing, and we were ushered to a clean room where we had to don a factory smock, hairnet, and face mask before being led to the production floor. Maintaining the sterility and cleanliness of the production line is utmost priority, evidenced by the steps taken before you even step into the assembly area – industrial-strength air blowers blast debris off your suit, and wet pads you walk on clear any sediment on your shoes before you enter.

The first thing that hits you when you're on the factory floor is how many rows of production there are. Each camera runs through about 10-12 steps of assembly, cleaning and monitoring both by hand and by machine. While the main components such as the front body unit, pentaprism and sensor reach the line ready for assembly, it's not quite as simple as fitting all the pieces together and screwing the body shut.

Rather, every unit has to be precisely aligned, and even the amount of torque applied to the screws for particular units is digitally measured for absolute precision. Different units were put through different means of testing – for example, the main mirrors are checked and tested for flaws using an electronic microscope, while the main CMOS sensor is checked for alignment by placing the entire body into a machine that uses sensors to measure the sensor's exact position before being mounted.

After every camera body is fully assembled, a worker mounts a lens on the camera to test the basic functions like the various drive modes, and physically checks to ensure that everything is fit together well. After that, a computerized system checks the sensor's resolution, the flash sync speed, and the focusing ability in movie mode, while the flash is fired off several times to ensure that it's working properly.

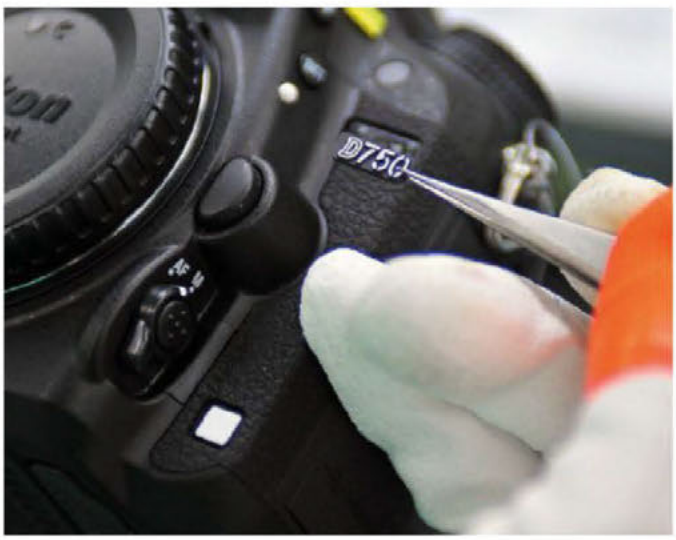
Full assembly for a single camera takes about 100 minutes, and on a monthly basis, the Ayutthaya factory alone produces on average 500,000 units of DSLR and Nikkor lenses, with a max production of 700,000 units per month – impressive numbers when you consider the rounds of testing and evaluation each camera goes through.

The factory operates 24 hours a day, split between two teams, but to ensure that the workers stay fresh, Nikon has enforced a 15-minute break every two hours. Perhaps because of the precision necessary for the assembly, a majority of the workers are female, and while Nikon states this certainly isn't by design, they have noted that females have proven to be both adept and nimble in handiwork, which contributes to the meticulousness needed for the assembly process.











PICTURES **NIKON**

Apparently, all new employees at the factory are trained with the basic skills to start, then moved on to specialized training for the particular stage of assembly at which they'll be posted to. This specialized training takes two weeks, and occurs before the employee begins official duties. Additional training is conducted as necessary, and all employees get bi-annual training to further their abilities.

What's interesting to note is that while Nikon Thailand initially started with DX-format DSLRs, the quick improvement in skill level of the staff saw them progressively move to managing the production of selected FX-format DSLRs. Now, a large portion of Nikon's DSLRs are produced in Thailand, with just the "high-end" and "special" category models produced in Japan.

The production plan is managed by Nikon headquarters (Japan) on a bi-weekly basis based on consolidation of market information, allowing them to match demand appropriately. While all the research and development is done in Japan, the key engineers from Thailand are sent up to Japan when new models are introduced, so that they can share whatever new techniques that have been developed upon their return.



"While the main components such as the front body unit, pentaprism and sensor reach the line ready for assembly, it's not quite as simple as fitting all the pieces together and screwing the body shut."





Recovery from disaster

Nikon says that during the flooding in 2011, the water level around the factory went up to 2.8m deep, and stayed at that level for about 14 days. This necessitated the use of joint efforts with Thailand's army to fly staff in by helicopter, allowing them to recover important equipments before they were damaged beyond repair.

They started pumping water out of the factory in early November, and it took about a month to have the factory clear, by which time most of the damage had already been done. Production was moved to Japan in the meantime, with some 300 to 400 staff flown over to Nikon's facilities there. Measures have since been taken to prevent a reoccurrence, like a new flood wall created some 800m away to protect the factory from water damage, and a new satellite factory built north of Ayutthaya on higher ground.

Knowing all that, and looking at some of the photographs shared, we must say it's incredibly impressive that the factory has recovered as well as it has – there are virtually no signs of water damage anywhere! HWM

PICTURES NIKON

VOLUME 7 ISSUE 11

SMB

THE SMALL MEDIUM BUSINESS SECTION



3D PRINTED FUTURE

Ricoh Brings 3D Printing to Malaysia with MakerBot

135

AZIZUL RAHMAN ISMAIL

He knows what you need

Getting ahead in business as all about getting the information you need, when you need it, and Azizul knows this well. He digests business related technology, events, news, and products to give you only what you need to drive your small and medium-sized business ahead of the pack.



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Coverage of business events in and out of the country



138 Intel-powered ASUSTOR AS5002T

ENTERPRISE-CLASS PORTÉGÉ

Toshiba Introduces Z20t Convertible Ultrabook for Business Professionals

Toshiba introduced the new 12.5-inch detachable ultra-portable notebook with a reversible dock, dubbed the Portégé Z20t. Aimed at business users, it is equipped with a variety of productivity and security features, while backed by Intel Core M processors.

It is touted to have an extra-long battery life, which is rated at up to 16 hours. The lightweight magnesium chassis is sleek and thin to complement the style of the on-the-go professional.

The Portégé Z20t sports an integrated Wacom digitizer, which offers handwriting recognition for note taking and drawing quickly and clearly in meetings. It can then be stored conveniently in a dedicated slot on the tablet.

As for the display, the Ultrabook has an anti-glare Full HD IPS touchscreen. The keyboard is spill resistant and backlit, with improved key design and an integrated AccuPoint nub to provide an alternative to the large clickpad.

Under the hood, the Intel Core M processor is backed by an SSD of up to 256GB and up to 8GB of LPDDR3 memory together with Intel HD Graphics.



The Portégé Z20t maintains a sleek portable design, while sporting full-sized ports.

Enterprise-level security features are also standard on the Portégé Z20t. These include Toshiba's EasyGuard suite, Trusted Platform Module (TPM), and Intel Active Management Technology (AMT), which allows the IT department to monitor, maintain, repair, update and upgrade machines remotely.

Each model has also passed several rigorous tests to meet Toshiba's quality standards – including the HALT (Highly Accelerated Lifestyle Test) by independent German test institute, TÜV Rheinland, such as drop testing up to 76 cm.

RICOH-MAKERBOT PARTNERSHIP

3D Design Contest Marks Agreement Between Printer Juggernauts

In conjunction with the partnership between Ricoh Malaysia and MakerBot, the printing industry giants announced the 'Imagine 3D' contest. Themed 'Imagine Functionality: The Perfect Office Aid', the contest will have participants design their version of the ideal office aid.

"In life, we are fueled by a spark of inspiration to make a change, but are often held back by limited resources. Today, with the 3D technology and tools that we can offer, we can make the change we hope to pursue in our workplace with ease, turning our ideas into reality. Together with the MakerBot Replicator, we really have no boundaries in achieving our dreams," said Peter Wee, Chief Operating Officer, Ricoh (Malaysia) Sdn Bhd.

There are two main models of the MakerBot: MakerBot Replicator Mini and MakerBot Replicator. Both are state-of-the-art 3D printers capable of producing a wide range of forms, colors, as well as textures with incredible customization.

The free-to-enter 3D contest is open to anyone above the age of 21 and can be categorized into two groups: corporate and individuals.

Top 10 submissions from each category will automatically enter the bonus Facebook category, and stand a chance to win 'The People's Choice 3D Design Award', be printed with the MakerBot printers, and showcased live at the contest finale on March 20, 2015.

Winner for the corporate category will take home a Ricoh e-store voucher, RM2,000 cash prize and a brand new 3D MakerBot Replicator Mini (worth RM4,999) for their company, while the grand winner for the individuals category will walk away with a RM2,000 cash prize.



POWERED BY AMD

The Latest NAS by QNAP Will Be Powered by AMD Embedded G-Series SoCs



QNAP TVS-863+, one of the latest AMD powered NAS from QNAP.

QNAP announced that its new TVS-863+ and the TVS-x63 platform, designed for small to medium-sized business and small office home office customers, will sport AMD chips that are previously codenamed 'Steppe Eagle'.

The AMD Embedded G-Series SoC offers high performance 2.4GHz quad-core processor, up to 16GB RAM support, integrated security with hardware encryption engine, and a discrete-class graphics processing unit (GPU) and I/O controller on the same die.

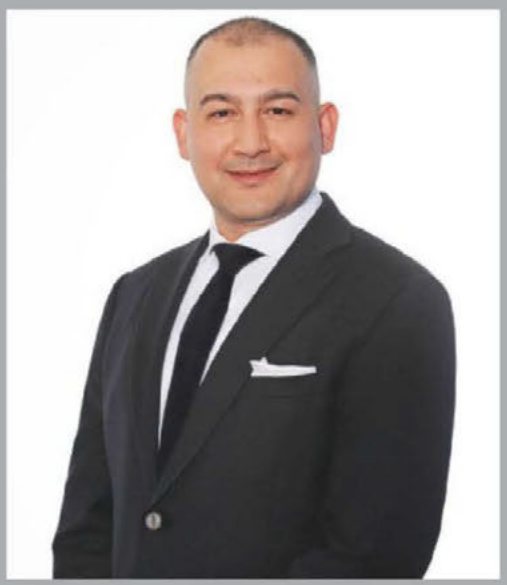
"The AMD Embedded G-Series SoC is ideal for SMB and SOHO network storage needs. It provides a low-power platform with exceptionally high performance at an affordable price point. This feature-rich platform provides ideal cost-performance ratio for business users," said Y.T. Lee, Vice President, QNAP.

Of the two platforms, the TVS-x63+ series Turbo vNAS is designed to be the affordable option for 4-, 6-, and 8-bay SMB NAS servers. Powered by AMD's 2.4GHz quad-core processor with 10 GbE capability, it features a hardware-accelerated encryption engine with over 400MB/s throughput, paired with legendary AMD Radeon graphics, and AMD-V visualization support.

"The new QNAP NAS system based on the AMD Embedded G-Series SoC exemplifies AMD's continued dedication to innovation on embedded solutions. NAS is a great application for the AMD G-Series SoC, taking advantage of the strong compute, low-energy consumption, and integrated GPU for display and acceleration." said Scott Aylor, Corporate Vice President and General Manager, AMD Embedded Solutions.

BYOID

CA Technologies Highlights the Need for Organizations to Adopt the Bring Your Own Identity Approach



There is a high level of interest in BYOID and using social identities such as Facebook, LinkedIn or Yahoo!, with 50 percent of IT and 63 percent of business users globally expressing interest in this approach. The figures are even higher amongst Asia Pacific & Japan (APJ) business users at 67 percent. Simplifying users' experience plays a large role in generating this interest.

"Interest in BYOID is strong because it lets customers use a digital identity from a trusted third party such as PayPal, Facebook, Microsoft, or Google to log into websites without having to register and create another new account. As consumers grow weary of "registration fatigue", social IDs make sense in the enterprise, driven by the need for simplicity in the user experience and managing the overheads for scalable authentication support. Nevertheless, social IDs which lack the security credentials necessary to protect company information and individual data can also cause more problems for businesses," said Vic Mankotia, Vice President of Solution Strategy for Asia Pacific and Japan, CA Technologies.

In light of this fact, the Ponemon Institute and CA Technologies conducted a joint survey examining business users' and IT departments' attitude toward BYOID. The report highlights four key insights regarding the future of online identities that are crucial for businesses in Malaysia to understand and adopt in their technology investment and identity strategies.

They found that interest in using social IDs for login is high, especially for mobile and web customers, and additional security developments could drive increased BYOID adoption. The report also shows that preferred identity provider varied based on the situation and region, and identity is now viewed as a contributing growth asset, as well as a security component.

APPOINTMENTS

Avanade Welcomes New Malaysian Country Manager

Avanade recently announced the appointment of Subra Suppiah, as its Malaysian Country Manager. The business technology solutions, cloud, and managed services provider said that this move brings in over 24 years of experience.

Subra previously held management and senior sales positions with Knowledge Base, Oracle, NCR, and Unisys. Most recently, he served as the Country Manager for Teradata, and was responsible for driving sales and growth across a portfolio of strategic enterprise customers in Malaysia

"I am delighted to welcome Subra to Avanade. Subra's strong leadership, proven success, and focus on business development will enable us to drive the next phase of growth for Avanade in the region," said Kevin Wo, Avanade's Senior Vice President and General Manager for ASEAN.



Subra Suppiah, the newly appointed Country Manager of Avanade Malaysia.

Microsoft Malaysia Fills Two Senior Leadership Positions

Microsoft Malaysia recently announced the installation of two local IT industry veterans to executive leadership roles. This is said to be a move by the company to accelerate its transformation towards a mobile-first, cloud-first era.

"We are pleased to welcome two very experienced local industry veterans as part of our leadership team at Microsoft Malaysia. Thiyagu and Nik Ariff are important additions, who will play an integral role in Microsoft's ongoing people investments as it transforms to be the productivity and platform company for the mobile-first and cloud-first era," said César Cernuda, President of Microsoft Asia Pacific.

In the announcement, Thiyagu Letchumanan was named Director of Enterprise & Partner Group ("EPG"), while Nik Ariff Nik Omar was appointed Public Sector Lead for Microsoft Malaysia.

A highly-accomplished IT veteran and business leader with over 25 years of expertise, Thiyagu has taken on senior roles in multinationals such as Compaq, Hewlett-Packard and Siemens, leading their respective services and solutions businesses.

Nik Ariff brings with him more than 26 years of experience, having previously held a similar role at SAP Malaysia and Brunei for three years, leading the Public Sector, Healthcare and Education team, where he helped grow the business substantially.



Seagate's new range of NAS solutions.

NAS AND NAS PRO

Seagate Joins Network Attached Storage Race with Two New Product Series

Seagate announced that its portfolio will now include Networked Attached Storage (NAS) solutions that are specifically designed for today's small businesses in Malaysia. The new portfolio includes five NAS products in a range of capacities from 2TB to 30TB.

The Seagate NAS and NAS Pro series are designed for home office to small businesses with up to 50 employees and is the debut platform for its NAS operating system, NAS OS 4.

The new OS comes with a redesigned Device Manager, where users can manage preferences and configure settings from a single location. It also includes App Manager and Seagate Sdrive for remote access.

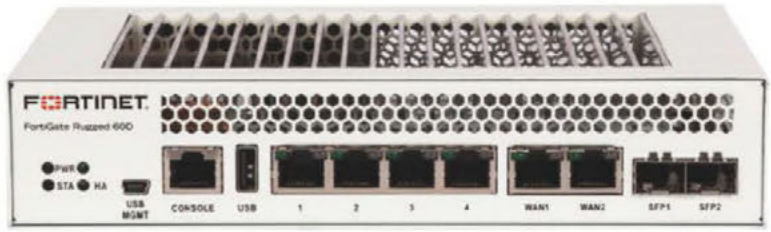
Each NAS comes equipped with Seagate's NAS HDD drives in capacities up to 5TB. In addition, Seagate tests every product extensively before being shipped, and backs them with an expert in-house tech support team.

Seagate NAS business storage is available in 2- and 4-bay configurations with a 1.2GHz Marvell ARM processor and 512MB of RAM. It is meant for small office and home offices with up to 25 employees. It comes with the price tag of RM999 for the two-bay 2TB to RM2,699 for the two-bay 10TB version. The four-bay configuration is expected to be priced at RM1,899 for 4TB to RM4,799 for 20TB.

The Seagate NAS Pro, on the other hand, is one of the first products to debut with Intel's latest 1.7GHz dual-core C2000 series processor. It includes two-, four-, and six-bay models from 2TB for a retail price of RM1,649 to 30TB for RM9,099.

RUGGED NETWORK APPLIANCE

Fortinet's Latest Offers Integrated Solution of Network, Security and Wireless Devices for Industrial Customers Who Operate in Harsh Physical Environments



FortiGate Rugged 60D.

Fortinet has introduced four new networking, security, and wireless purpose-built products to meet the demanding standards of public utilities, oil and gas, mining, manufacturing, transportation, and other industries that operate in harsh physical environments.

They include the Rugged 60D, Rugged 90D, FortiAP 222C, and FortiSwitch 112D-PoE. These rugged and outdoor products are industrially-hardened appliances that deliver enterprise-class connectivity and security for critical control systems facing malicious attacks, as well as extreme weather and other demanding physical environments.

Additionally, dedicated security appliances, expert security intelligence powered by FortiGuard Labs with an emphasis on ICS threats and systems, plus consolidated wired and wireless networking combine to meet both the most demanding security requirements and environmental conditions for customers.

Other features include industrial control-specific capabilities, such as application awareness, and protocol support, and in form factors designed in accordance with international substation automation standards IEC 61850-3 and IEEE 1613, with fan-less, cable-less design.

Its integrated switching and wireless access delivers connectivity, as well as security for automated systems anywhere in the world. Strong remote configuration and management, as well as central monitoring and reporting ensures high availability and demonstrates compliance capabilities.

"Fortinet's new Rugged products enable customers to reduce the risk of catastrophic security incidents to critical infrastructure that could put public health and safety in jeopardy," said Michelle Ong, Country Manager, Fortinet Malaysia.

The FortiGate Rugged 60D and FortiAP 222C are available now, while the FortiSwitch 1112D-PoE and Rugged 90D will be available soon.

POWER USER'S CHOICE

ASUSTOR AS5002T

AT A GLANCE

CPU
2.41GHz dual-core Intel Celeron

Memory
1GB SO-DIMM DDR3L (expandable up to 8GB)

External Ports
3x USB 3.0, 2x USB 2.0, 2x eSATA, 1x HDMI 1.4a, 1x S/PDIF

LAN
2x Gigabit Ethernet

Price
RM1,599



The AS5002T has more than enough ports for all your network resource sharing needs.

CONCLUSION

Great expandability, versatility, and power, but its design could use a little improvement.

SPECIFICATIONS

HDD 2.5/3.5-inch SATA II/III or 2x SSD // **System Fan** 1x 70mm // **Max Internal Capacity** 12TB (2x 6TB HDD) // **File System** Internal disk: EXT4, external disk: FAT32, NTFS, EXT3, EXT4, HFS+ // **Dimensions** 163.5 x 108 x 230 mm // **Weight** 1.99kg // **Warranty** 3-years // **Contact** Build Technology Supply Sdn Bhd // **Telephone** (03) 7955 3699 // **URL** www.asustor.com

Compared to the other players in the network attached storage (NAS) industry, ASUSTOR is the new kid on the block. Hung on its belt are many firsts, which the company has made its name with. We had the chance to look at one of its latest offerings and we think the AS5002T is a cut above those in its class.

The first thing that caught our eyes was the number of ports and the types of ports on the AS5002T. There is a USB 3.0 port paired with a one-button backup feature in front, which is standard, but at the rear, you'll find two more USB 3.0 ports, two USB 2.0 ports, two LAN ports, and two e-SATA ports.

That is double of what you find on other NAS system of this price range, which makes the AS5002T a perfect centralized network resource manager for your storage, input, and output devices – but you might want to keep a couple of ports free.

An HDMI port and a S/PDIF port can be found on the back, mainly because the AS5002T can function as a standalone PC and media center, albeit not of the standard OS persuasion, but it has enough built-in features and media browsers one would expect from a NAS. Best of all, it also has a built-in Internet browser.

Handling it all is a 2.41GHz dual-core Intel Celeron processor and 1GB of DDR3L memory, which is expandable up to 8GB. Power and features like this unheard of in other NAS systems in its class.

Despite that, what matters most on a NAS is its software, a bar that ASUSTOR claims it has set. We have to agree it is one of the best, and thanks to the beefy processor and RAM, the AS5002T's interface is noticeably more pleasant to use, as it is fast and responsive.

Nevertheless, we question a few of ASUSTOR design decisions. First, although the disk tray on the NAS is easy to pop out, grab and swap, it also uses screws and not clips, which we feel should be a standard when it comes to attaching HDDs to the trays. There is also no padding between the HDD and the tray and chassis. Simple rubber padding would've function as additional shock absorbers and in turn reduce the resonance within the NAS.

Lastly, due to the large number of ports, the AS5002T is fitted with a smaller fan. We didn't experience any problems with it, except that it is a little loud, but we would have felt better if it was a larger fan to not only cool the HDDs, but also the processor in such a confined space.

by *Azizul Rahman Ismail*



TESTED & RATED

8.5/10

HWM MALAYSIA

IN THE RIGHT DIRECTION

Synology DS214+

AT A GLANCE

CPU
1.33GHz dual-core Marvell Armada XP MV78230

Memory
1GB DDR3

External Ports
1x USB 2.0, 2x USB 3.0, 1x eSATA

LAN
2x Gigabit Ethernet LAN (with Link Aggregation / Failover support)

Price
RM1,599



Synology favors a larger cooling fan over more ports, and we support that decision.



CONCLUSION

The Synology DS214+ is definitely an improvement over past models and a sign of more good things to come.

SPECIFICATIONS
Max Capacity 12TB (2x 6TB HDD) // **Internal Drive File System** EXT4 // **External Drive File System** EXT4, EXT3, FAT, NTFS, HFS+ (read only, with max. volume size 2TB) // **Certification** FCC Class B, CE Class B, BSMI Class B // **Supported RAID Type** Synology Hybrid RAID, Basic, JBOD, RAID 0, RAID 1 // **Dimensions** 157 x 103.5 x 232 mm // **Weight** 1.65kg // **Warranty** 2-years // **Contact** Build Technology Supply Sdn Bhd // **Telephone** (03) 7955 3699 // **URL** www.synology.com

We have tested a number of Synology NAS systems last year and with every new iteration, the brand managed to impress us one way or another. Looking back, however, we noticed that most of the improvements were incremental, but with the DS214+, it looks like things are heading in a different direction.

Unlike most of the Synology NAS we have looked at in the past, the business and power user-centric DS214+ has a metal casing and a modern professional look. We certainly do not miss the removable cover design and especially the sliding cover design that we've seen before.

We especially like the HDD tray system in the DS214+. We've always loved Synology's use of clips and rubber bumpers to hold a HDD in its tray. This design takes it further by using a sturdy and clean front design that has a pop-up handle, which can be locked to prevent unauthorized access. It is definitely a step up from the previous design.

The number of ports on the DS214+ is less than a competing model of the same price. There is one USB 2.0 in front, two USB 3.0 ports at the back, an eSATA port, and two Gigabit Ethernet ports. On the other hand, Synology uses a larger 92mm x 92mm fan, which we think is a good trade-off. There is no SD card reader either.

Internally, the DS214+ has a 1.33GHz dual-core Marvell Armada XP MV78230 processor that places it between the DS214's 1.066GHz dual-core Marvell Armada XP MV78230 and the 1.6GHz dual-core Intel Atom CE5335. It also has only 1GB of RAM and is not expandable.

The processor speed plays little role in determining the transfer speeds, thanks to the HDD and network speeds. However, it does play a bigger role in certain operations, such as encryption and media playback.

In our tests, the DS214+ had no problem streaming Full HD videos stored in a pair of 2TB Seagate NAS HDDs. However, we noticed better speeds, less problems, and more streaming options while using the Synology DS Video mobile app compared to a desktop PC that uses a VLC plugin.

Synology's DiskStation Manager (DSM) OS has gone through many improvements last year. It is certainly good and does its job well, but, it is also standard. The suite of apps at the moment of the system's initialization is enough for most users, but nothing that truly stands out. Setting up remote access, security, and managing users is a breeze.

Overall, we like the design improvements in the Synology DS214+ and it is something we'd like to see in the other models as well. Also, as DSM continues to evolve, we hope to see more practical improvements, something that would make it special.

by *Azizul Rahman Ismail*

TESTED & RATED

8.5/10

HWM MALAYSIA

QUALITY OVER QUANTITY

Samsung Xpress C1810W Color Laser Printer

AT A GLANCE

Print Speed
Up to 19 ppm (monochrome and color)

Print Resolution
Up to 9,600 x 600 dpi

Interface
Hi-speed USB 2.0, 802.11b/g/n wireless, Wi-Fi Direct, NFC

Dimensions
420 x 426 x 264 mm

Weight
16.6kg

Price
TBA



The Xpress C1810W comes with NFC, so you can just tap your smartphone on the printer to begin printing.

CONCLUSION

Not the fastest kid on the block, but good quality prints with wireless convenience make for a decent personal printer.

SPECIFICATIONS

Processor Dual CPU (Main: 533MHz / Sub: 150MHz) // **Operational Panel** 2-Line LCD // **Power Consumption** 380W (Printing) / 50W (Standby) / 1.5W (Power Save), 2.6W (Power Save, Wi-Fi Direct on) // **Noise Level** Less than 50dBA (Printing) / Less than 32dBA (Standby) // **Duplex Print** Manual // **Operating System** Windows 8 / 7 / Vista / XP / 2008R2 / 2008 / 2003, Mac OS X 10.5-10.9, Various Linux / Unix // **Contact** Samsung Malaysia Electronics Sdn Bhd // **Telephone** 1 800 88 9999 // **URL** www.samsung.com/my

The Samsung Xpress C1810W is a color laser printer that's suitable for home use or as a printer in the office. Its compact size means that you can also use it on your desk as a personal printer. There's no automatic document feeder and it doesn't do automatic double-sided printing, but these are features you wouldn't expect in a color printer at this price.

You won't find any fancy buttons or controls with the Xpress C1810W, and you get a simple two-line monochrome LCD display. The Xpress C1810W does come with a 250-sheet paper tray though. Most people assume laser printers to be lightning-fast at printing documents, but the more affordable models aren't actually any much faster than their inkjet counterparts.

The Xpress C1810W is quite slow in terms of print speed among laser printers in this price range, with the printer taking close to 18 seconds to print out the first page, which is below average. After that, its print speed for monochrome documents is about 18 pages per minute (ppm), and surprisingly its speed for printing color documents isn't that much slower. The first page out for color documents took 22 seconds, and subsequently we tested it to be around 18ppm as well.

The Xpress C1810W may not be the quickest one around the block, but it shines in terms of print detail. Text is sharp and colors are vibrant. Photo prints also looked reasonably good, more so than some of the more expensive color printer models.

The printer also features built-in Wi-Fi and NFC, so you can use the Samsung Mobile Print app to print directly from your smartphone. It's not only limited to documents though, as you can print pictures from your smartphone gallery or images stored in Dropbox. The Mobile Print app doesn't allow you to crop out certain parts of a web browser though, and you will have to print the entire webpage. Choosing to print from Facebook will launch the mobile browser version instead of the smartphone app, so the interface and layout isn't as refined as its mobile app interface.

The Xpress C1810W may be quite slow in terms of print speed, but its print quality, resolution and color reproduction is good. As a personal printer, you probably aren't printing in huge volumes so this works out in favor of the C1810W. Built-in Wi-Fi and NFC makes printing from your notebook or smartphone easy too.

by *Hafeez Sim*

TESTED & RATED

8.0/10

HWM MALAYSIA



LEARN

ANDROID WEAR

Android Wear is Google's version of Android for smartwatches and other wearables. The OS has been designed to work on a small scale, with voice commands and minimal touch input as your main navigation points. If you've just bought your first Android Wear device, or you just want to get more out of your existing wearable, here's everything you'll need to know to get the most out of Android Wear.

Text by *James Lu*
Art Direction by *Ian Chong*



MORE INSIDE>

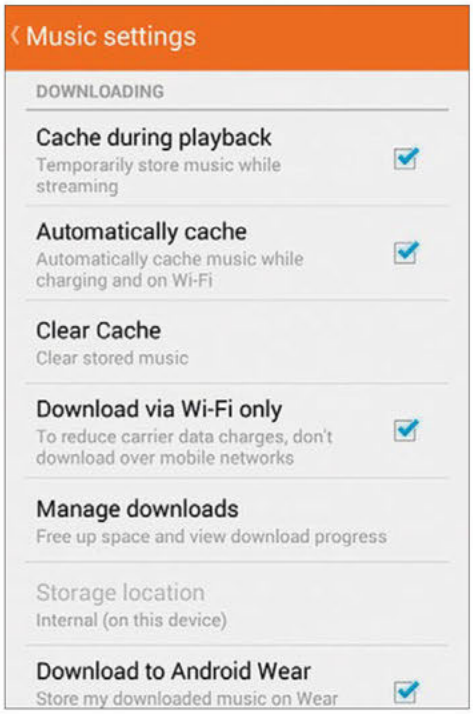
- ADOBE CREATIVE CLOUD LIBRARIES MADE EASY
- SYNCING AUDIO FOR DSLR VIDEO RECORDING
- A GEAR AND A GALAXY (PART 1)

CHANGE YOUR WATCH FACE

There are two ways you can select a different watch face. The easiest way is to just hold down on the current watch face, then scroll through the options. If you don't see anything you like, your most recently used watch faces will be found all the way to the left. Alternatively, you can go to the settings menu by tapping the clock, then scrolling all the way to the bottom, then scrolling down again to "Change Watch Face."







LISTEN TO MUSIC OFFLINE (EVEN WHEN YOUR PHONE ISN'T IN RANGE)

The latest Android Wear update enabled offline music playback via Google's Play Music app - that means you can store audio tracks on your watch and listen to them even when your phone is out of range.

Start by opening Play Music on your phone, then head to the Settings screen and scroll down to the Download to Android Wear option – enable this to start syncing songs over to your smartwatch. Songs, albums and playlists can be marked for offline listening, just note that most smartwatches don't have a huge amount of storage space, so you'll have to be selective with what you transfer.

Once you've synced your music, go to the Play Music app on your watch. You'll see a list of songs you've synced. You can swipe down to display different playlists, or swipe left on the chosen playlist to start playing it on shuffle. Swipe left again and you'll get to the track listing, which will let you pick a specific track to play.

Note that very few smartwatches have their own speakers, so you'll have to pair a set of Bluetooth headphones with your watch to listen to music.



GET FAMILIAR WITH NOW NOTIFICATION CARDS

Now Cards are notification cards similar to Google Now that pop up from the bottom of your screen. These include text messages, emails and missed phone calls, as well as traffic and weather updates. As of update 4.4.W.2, you can opt to have these notification cards remain on your screen until swiped away (just swipe down to dismiss them), or to only pop up for a few seconds before disappearing. Toggle between the two settings by going to the Settings menu and selecting the "Card Preview" option. Opting for "Watch face sets card preview" will allow notifications to remain on the display, while selecting "None" will not. Whichever you select, you can see your unread notifications by swiping up from the bottom of the display.

To scroll through your notifications, keep swiping up. If you want to see more info on a card, just tap it. Some cards will display extra options when you tap them, for example, a Gmail card has options that let you archive, reply, or open Gmail on your phone. When you're done with a card, dismiss it by swiping from left to right. Dismissing a card on your watch will dismiss the same notification on your phone and vice versa.

If you accidentally dismiss a card and want to retrieve it you can do so by immediately swiping down from the top of your watch's display and pressing the 'Dismissing' button with the reverse arrow on it. You have about five seconds (there's a little timer surrounding the button that shows you how much time you have left) before the notification is gone forever.





CHOOSE FROM A LIST OF THINGS YOUR SMARTWATCH CAN DO

If you're in a public space and you don't want to talk to your watch, you can bring up a list of things it can do. Just wake the screen up, then touch anywhere on the screen. You'll see a white screen with a red 'g' on it. Below the g is a list of things your watch can do, such as "show me my steps", "show me my heart rate", and "set a timer."

You can also open any installed apps from this screen, just scroll all the way to the bottom and select the "Start" option. This will display your list of installed apps. To install more apps, open Android Wear on your phone, scroll to the bottom of the screen and select the "Browse suggested apps" option. Anything you choose to install here will automatically sync to your watch.



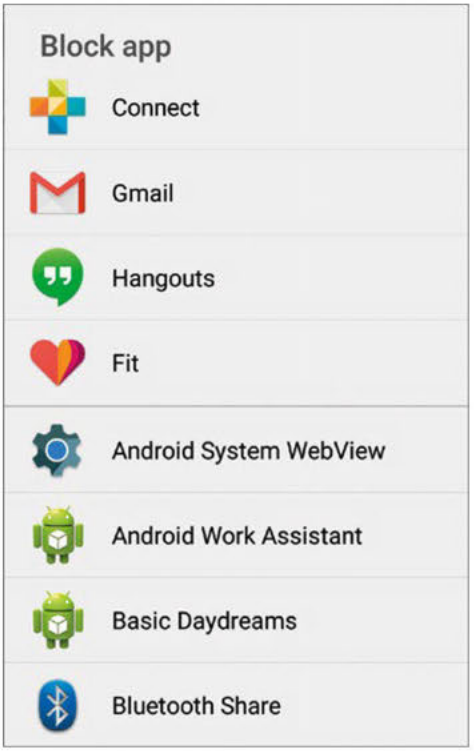
CHANGE YOUR WATCH MODE BASED ON YOUR ENVIRONMENT

If you've updated to Android 5.0 Lollipop on your smartphone, your Android Wear device will have been updated with two specialized modes: Theater, which deactivates the screen and turns vibrations off, and Sunlight, which momentarily boosts screen brightness, for when you're trying to read the display outdoors. Swipe down on the watch face then swipe to the right to find these modes. Sunlight mode automatically deactivates itself after a few seconds, but Theater mode has to be toggled off manually: just double tap the screen, or if your watch has a physical button on the side, just press that to get back to normal.



GET USED TO SPEAKING TO YOUR WATCH

While a few wearables boast 2-inch screens, most smartwatch screens are much smaller. It can be tricky to input commands or even navigate the menu with your finger on such a small screen, so your main point of interaction should be with your voice. Start by waking the screen up by touching the screen, bringing the watch up to your face, or by pressing a button on the watch (if it has one), then saying "Okay Google..." You can follow up with almost any query or command you can think of, such as "set an alarm for 6PM today" or "what is 15 percent of 32?" or "what's the weather like today?"



SELECT WHICH NOTIFICATIONS GET PUSHED THROUGH TO YOUR WATCH

If you don't want to be spammed by non-stop notifications on your watch, you can choose which notifications go through and which stay on your phone. Do this by going to the Android Wear app on your phone and opening the "Mute app notifications" option. You can then select which apps you want to blacklist, preventing them from forwarding notifications to your watch.

SYNCING AUDIO FOR VIDEO

by *Marcus Wong*

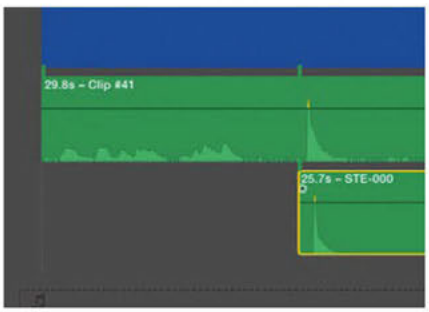
Nothing feels more unnatural than watching video that is out of sync with the audio, but quality audio means incorporating an external audio source. Read on to find out just how to get all your feeds perfectly in sync.

As good as the in-built microphone on your DSLR is, you'll probably want to invest in a separate audio recorder as you progress with your video explorations.

That's because the recorder from your camera is likely to capture everything that's going on when you're recording, which may not be optimal for getting clear dialog from your main subject.

A separate recorder placed near to the speaker allows you to get focused sound for clear audio, but introduces an extra element that you'll have to deal with – syncing the two feeds so the audio matches the video.

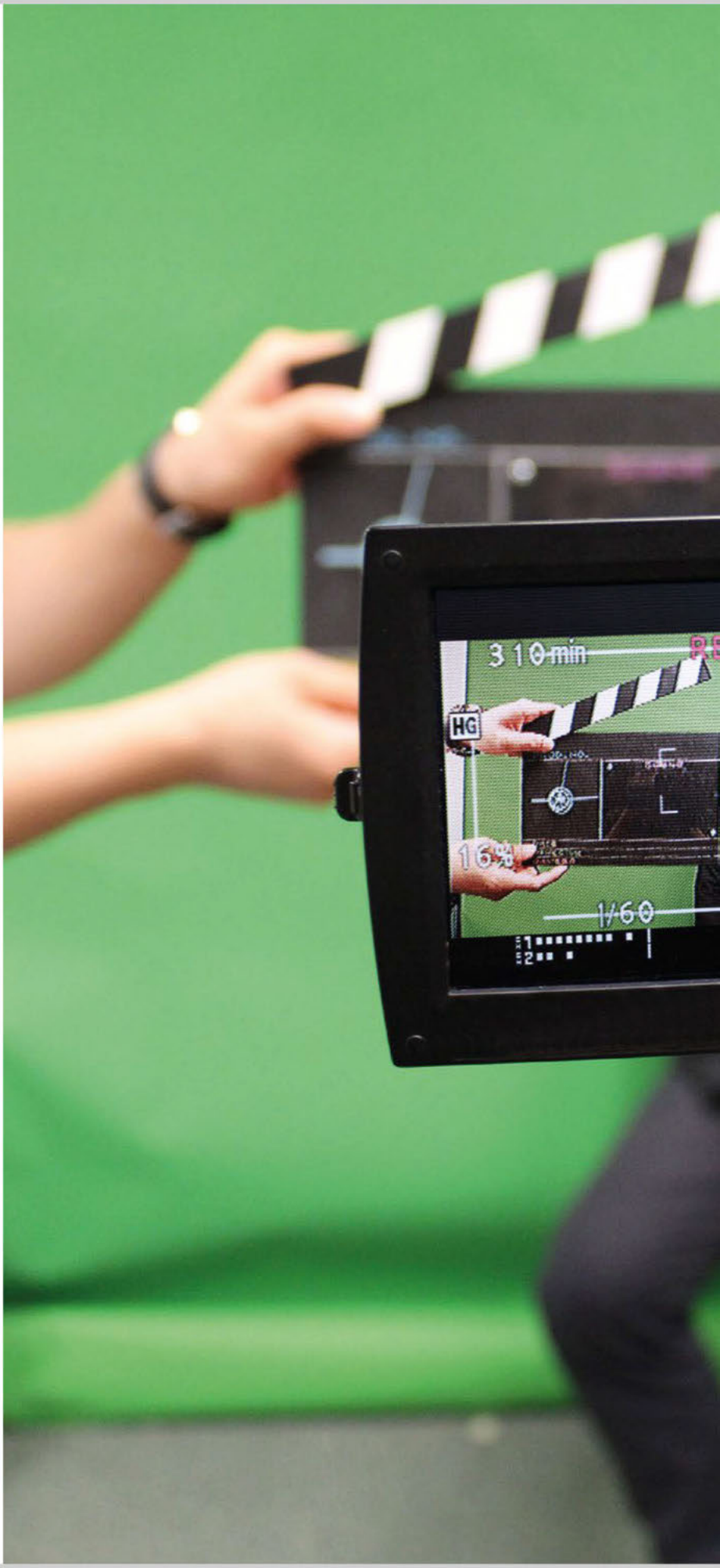
Here are a few quick tips to let you do just that:



MATCH THE WAVEFORMS

You'll probably notice when you drag a video clip into your editing software that there's a corresponding audio track below it. That's the audio from the camera itself, and gives you a guide as to where to place the track.

Remember that loud sound you made at the start of recording? That will show up as a spike in both the audio from your camera and the audio from the recorder. Match the two spikes, and you'll be well in sync!







USE A CLAPPER OR SOME OTHER DEVICE TO MAKE A LOUD SOUND JUST AFTER YOU HIT RECORD

This way, the noise is captured by both your camera and the audio device at the exact same time. Do this for every take, and you'll have an easier time matching all the audio back later. (And more so if you're using multiple cameras)



KEEP A TIME LOG OF WHEN RECORDING STARTS AND ENDS

If possible, have someone keep track of all the times you hit "record" and "stop" for the day, and add notes about each take so you know exactly which portion you're looking to use. This is especially handy if you follow the tip above and leave the audio on all the time, as you can just jump forward to the appropriate segment of audio by time.



LET THE AUDIO STAY ROLLING AND ONLY PAUSE THE CAMERA

While video files are large, the size of audio is much more manageable and so you can probably afford to leave your audio devices running the entire time. This helps as you don't have to worry about trying to simultaneously start both video and audio capture, and later you can just play back the audio to the appropriate point.

ADOBE CREATIVE CLOUD LIBRARIES MADE EASY

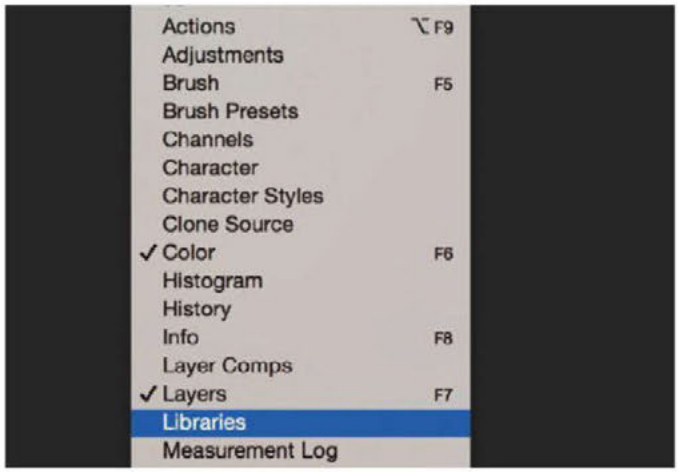
by *Jimmy Tang*

Have you ever experienced the frustration of searching through your files for commonly used creative assets, or having to open multiple files in different applications to get the common design elements you need for your project? Or when you're done with your project, only to realize that you've ended up with outdated creative elements?

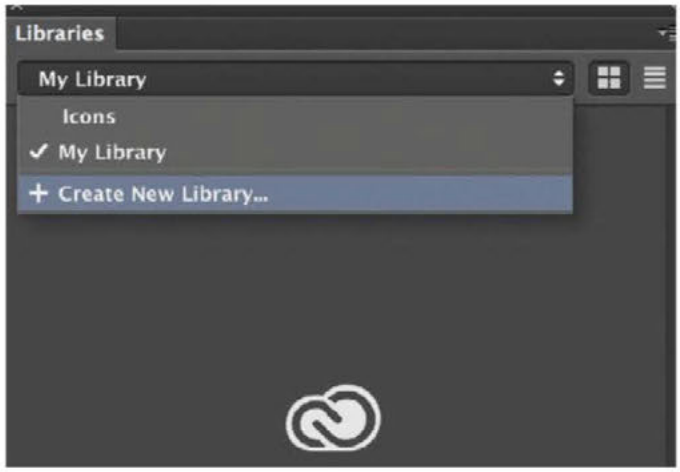
All of that will be behind you with Adobe's latest update to its Creative Cloud suite of software. If you're a subscriber to Adobe CC, the October updates would have enhanced your favorite applications with the library feature which helps you manage your creative assets and help your streamline your project workflow. It's built to help designers manage and access their favorite colors, color themes, brushes, type styles, and raster and vector graphics through Creative Cloud.

Let's run through some of the basics of Adobe's new Creative Cloud Libraries in Adobe Photoshop CC 2014.

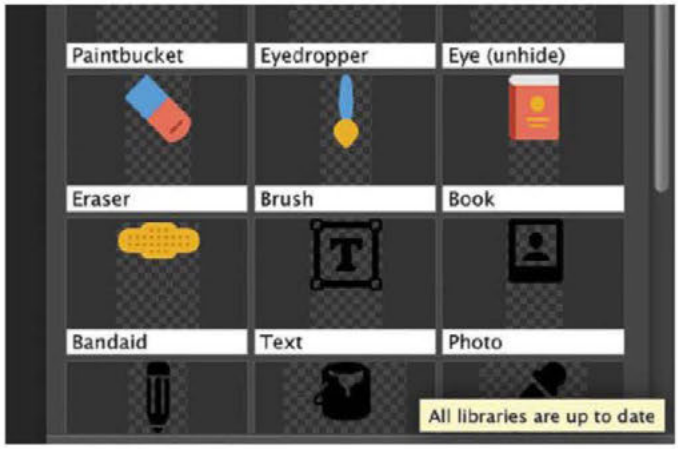
1) Open the Libraries panel by going to the Window menu and choosing the Libraries option.



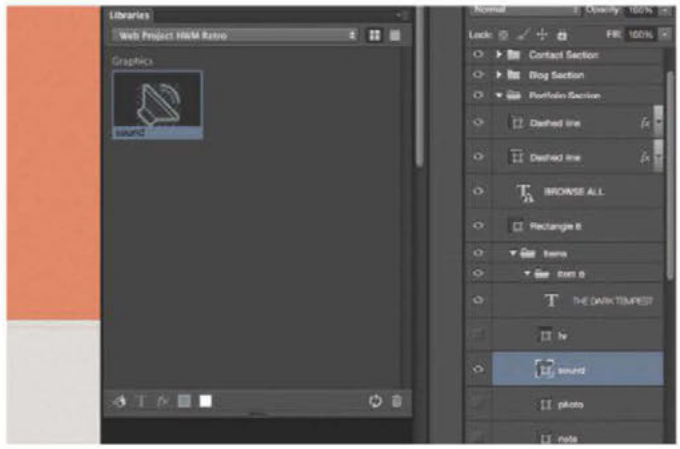
2) Create a new library for your project by selecting Create New Library from the dropdown menu. Give it a descriptive name so that it's easily identified once it's synced into your Creative Cloud.



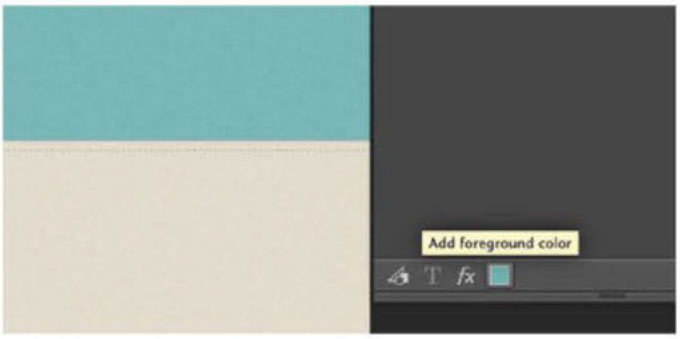
3) The icon on the bottom right of the panel will tell you if your assets are synced into Creative Cloud. Once they are in the cloud, you can access them in other applications like Illustrator and Adobe's mobile apps.



4) To add assets into project library, select the object from the layer's panel. Once you've selected the right layer, press the V key to use the move tool to drag the object and drop directly into the libraries panel. The asset will then be synced automatically into the Creative Cloud and appropriately labeled as a graphics object. If you don't want to drag and drop, you can also click the Add Graphic icon on the lower left corner of the Libraries panel.



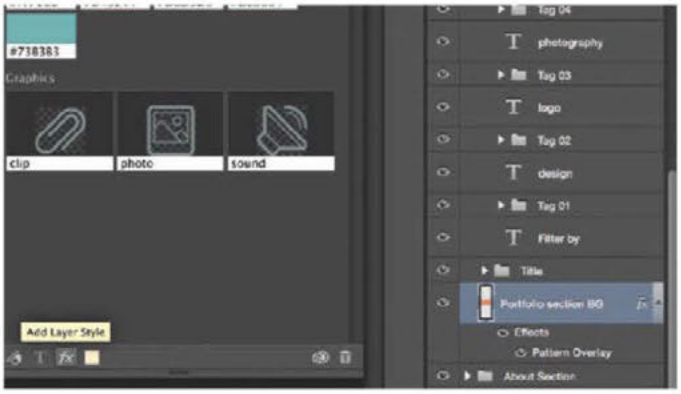
5) To add color, find and select the object from the layer panel. Once it's highlighted in the layer's panel, you can click the add color button in the Libraries panel to add it into the project library. You can see that it's added and labeled as colors. All other colors added from now on will be grouped under colors, so it'll make accessing your project's color palette a whole lot easier.



6) You can also add type styles by choosing a type layer in the layer panel and click the Add Text Style button and it will be added to the library.



7) Similarly, a layer style can be added to the library. You can do this by simply selecting a layer that contains a layer style and then clicking the Add Layer Style button in the Libraries window.

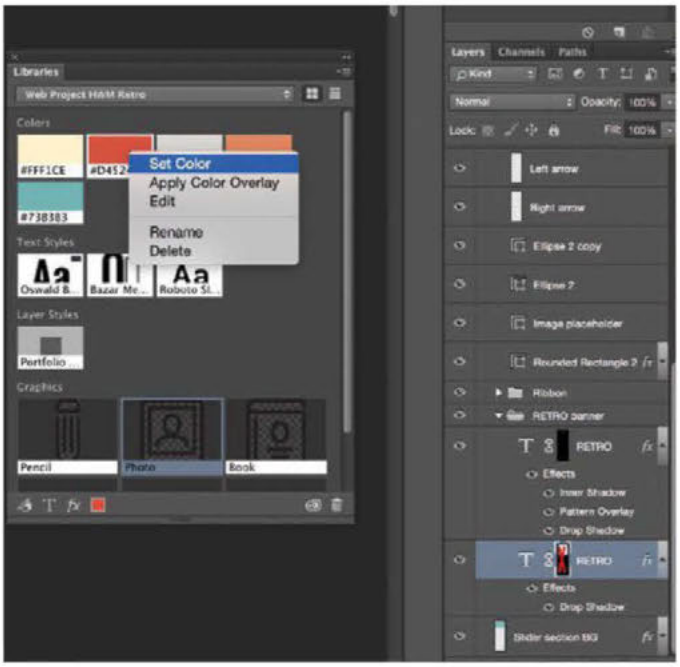


8) You'll notice by now that all these creative assets are stored in the cloud that can also be accessed in other applications. Similarly, you can add other assets to the project library from other applications like Illustrator and Adobe mobile apps too.



The Creative Cloud libraries panel is also available in other applications like Adobe Illustrator CC 2014.

9) The process to apply the creative assets you've collected in your library into your project is very much the same. If you're applying a text style into your project, select the appropriate text object in your layer panel and subsequently click the text style in your libraries panel. The same goes with color and layer styles.



10) An image object saved into your project library from Illustrator can also be dropped into your Photoshop project simply by dragging and dropping it from the libraries panel. If it's a vector art, it will be automatically converted into the right format in Photoshop.



The vector graphics extracted earlier in Step 8 from Adobe Illustrator can be easily dragged into the Photoshop workspace from the Libraries panel.

As you can see from this simple exercise, Creative Cloud Libraries let you access and gather your creative assets in a single location, accessible anytime on any computer through selected applications, as long as you're connected to the Internet. When your assets are always within your control, maintaining an updated and consistent set of assets for any of your creative projects will help you streamline your workflow while making it easier to focus on your designs.

A GEAR AND A GALAXY (PART 1)

How to sync your Samsung Gear S to your Samsung GALAXY smartphone.

by *John Law*



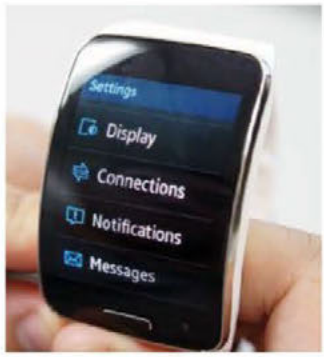
Over the past few months, smart wearables are slowly but surely becoming a part of our lives. Samsung was one of the early adopters and in this issue, we'll show you how easy it is to pair the Gear S to your Samsung GALAXY smartphone.

STEP 1: POWER UP YOUR GEAR S

We think this step is self-explanatory. Once fully charged, boot up your Gear S by long-pressing the Action button in the middle of the device.



Choose the Settings option from the watch.



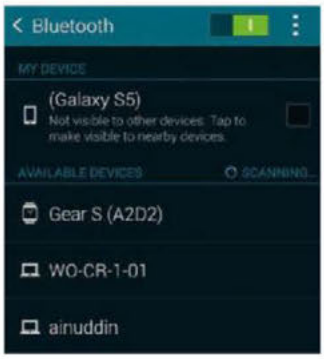
From there, select the Connections option.



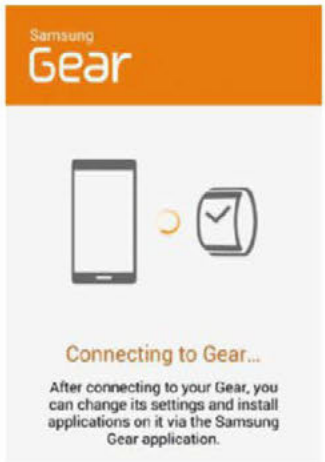
Turn on the Bluetooth function and make sure that it's visible.

STEP 2: TURN ON THE BLUETOOTH FUNCTION

To enable Bluetooth on your Gear S, simply swipe your finger upwards on the display. Scroll through the options until you find the Setting option. Tap on Settings, and then scroll down again until you see the Bluetooth option. Tap on Bluetooth to turn it on (you'll see a tick appear on the right side of the option), and also choose the option to make your Gear S visible to your smartphone.



Turn on Bluetooth and pair it with your Gear S.





Wait for it to pair with your phone...



And you're done!

STEP 3: PAIR THE GEAR S WITH YOUR SMARTPHONE

Once you've done all that, it's time to turn on the Bluetooth function on your smartphone. In this case, we used a Samsung GALAXY S5. Just as you did with the Gear S, turn on the Bluetooth function on your phone and start scanning for the Gear S. If you followed the last part of Step 2, you should see it appear on your screen.

Simply select the Gear S on your phone, wait for it to pair, and it's done. The Gear S is now paired together with your Samsung smartphone.

Note: Due to certain restrictions in Samsung products, the Gear S cannot be used with any other smart devices that isn't a Samsung GALAXY device, hence our use of the Samsung GALAXY S5 for this Learn article.

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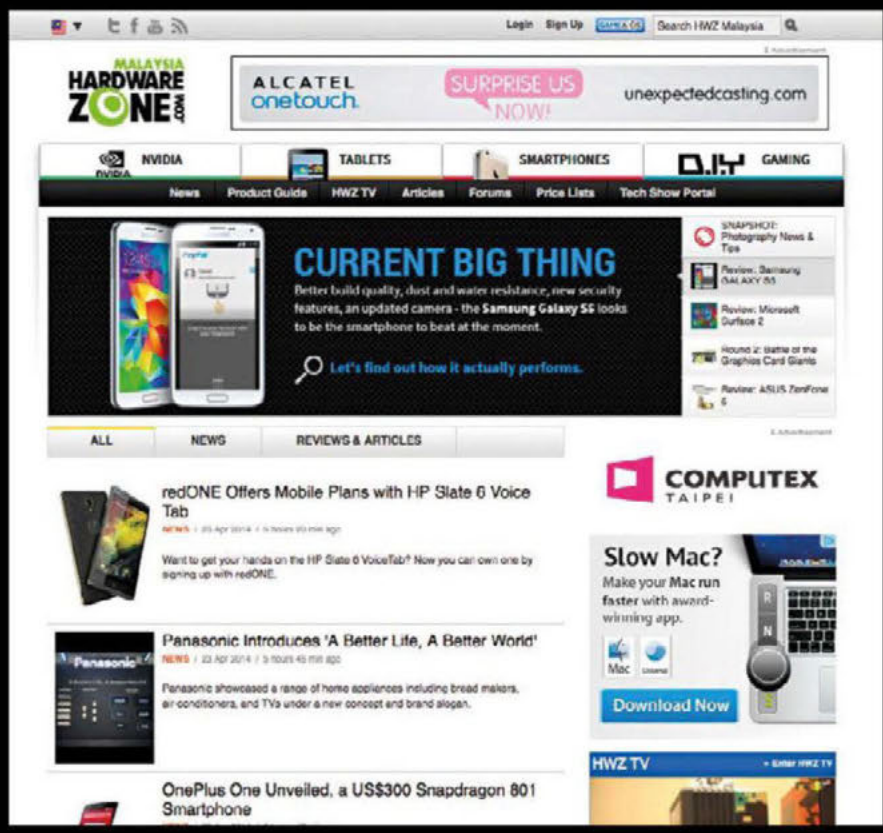
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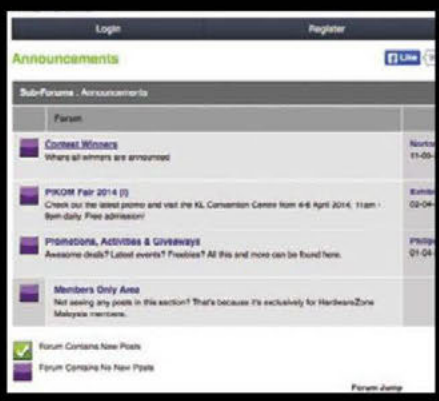
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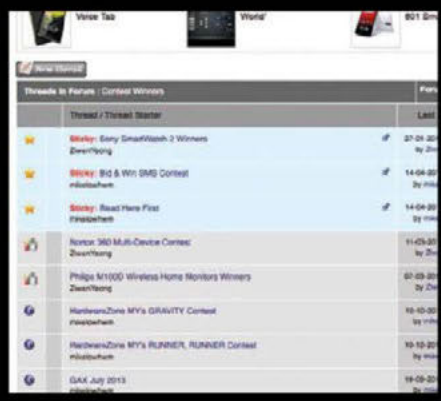
HWM MALAYSIA CONTEST WINNERS!

Did you join one of our contests? Not sure if you've won? To find out, head on over to our new HardwareZone Malaysia site @ hardwarezone.com.my and check out our new Forum (on the top navigation bar).

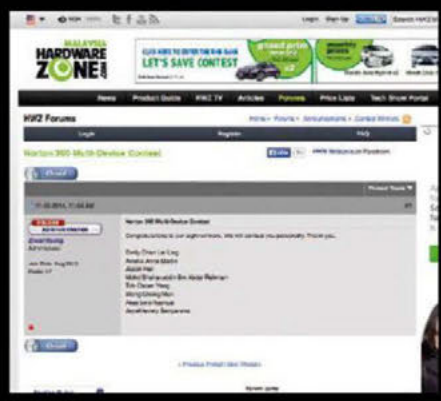




There you'll find Contest Winners.

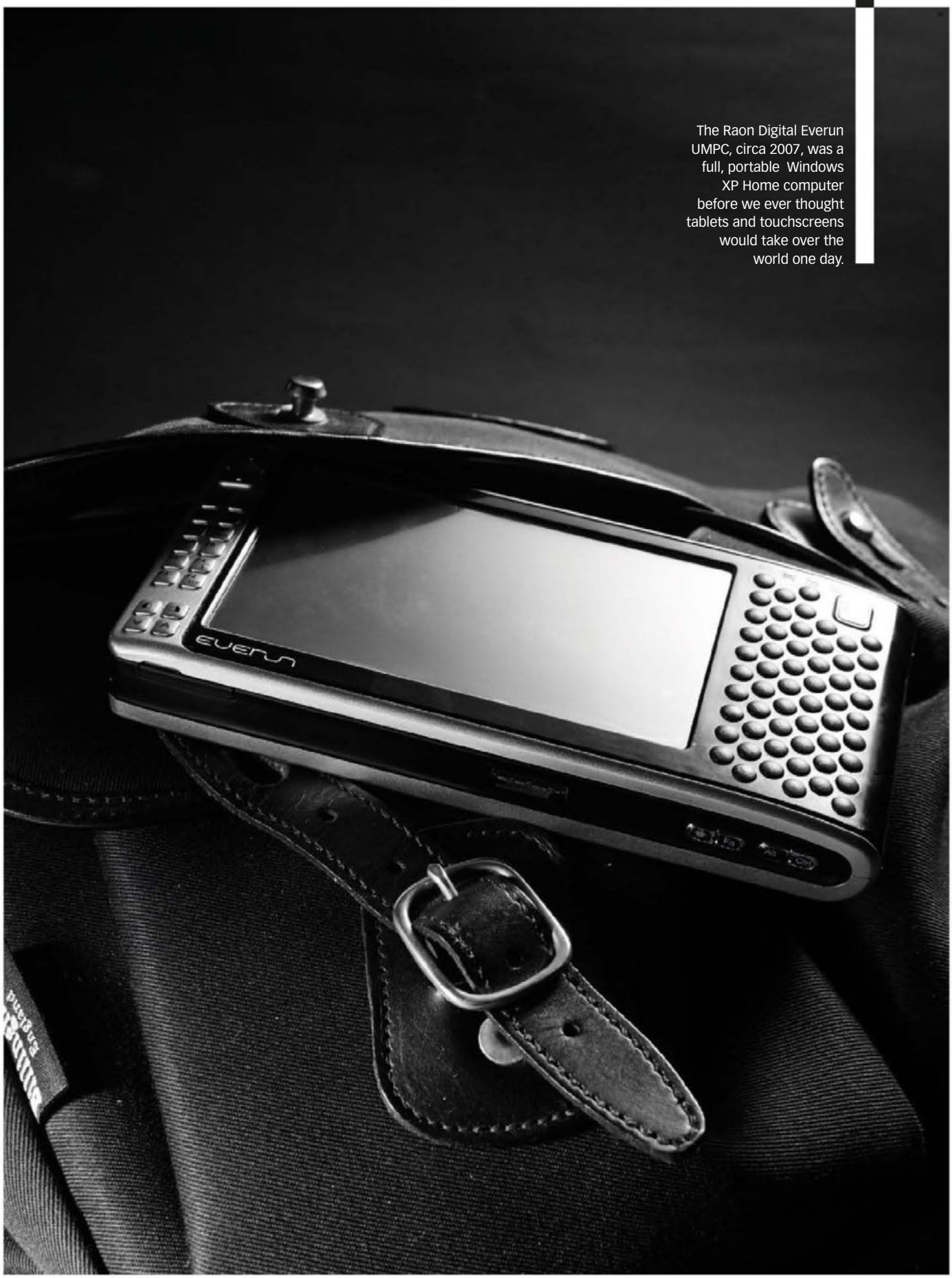


Click on it and you'll see the list of contests we have had – explore them to find if your name is there!



If it is, see how you can claim your prizes!

Congratulations to all our lucky readers and for those who didn't win anything – keep trying as we have new contests every month! Good luck!



The Raon Digital Everun UMPC, circa 2007, was a full, portable Windows XP Home computer before we ever thought tablets and touchscreens would take over the world one day.

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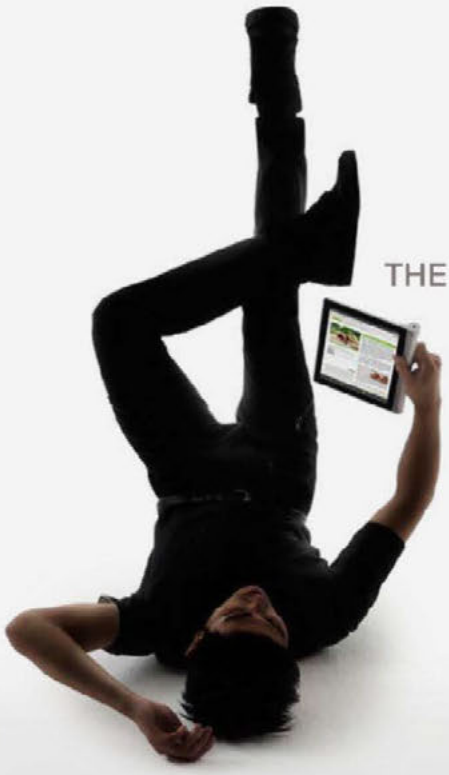
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